

NEW WORLDS SCIENCE FICTION

No. 59

VOLUME 20

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WRIGHT ★ BULMER ★ SILVERBERG ★ BOLAND

NEW WORLDS

PROFILES

Robert Silverberg

New York, U.S.A.



Acclaimed the most promising writer of 1956, Bob Silverberg is one of those fabulous young Men who live in the steel and concrete jungle of New York City. Still in his early twenties, he has been writing professionally since 1954. Asked about his working conditions, he states, "By dint of working an eight-hour day five days a week I've written and sold some 200 stories and five novels in three years—140 of the stories and all the novels being science fiction, which have appeared in eighteen different American magazines specialising in this form of literature.

"Like many current professionals, I started in the fan ranks and served a four-year apprenticeship there before making my first sale. Aside from writing science fiction, I both read and collect it, and *New Worlds* has been a favourite of mine since I encountered No. 4 in 1949. I'm married to one of America's very few female electronics engineers and we live together with our cat Antigone in a large, book-filled apartment.

"I don't believe that science fiction is a major art-form, or that Heinlein is as important a writer as, say, Thomas Mann—but I do feel that s-f offers unique opportunities for speculative thinking and imaginative creation, which is why I enjoy reading and writing it. I am fond of such unorthodox things as atonal music, *Finnegan's Wake*, the plays of Cyril Tourneur, and the works of Olaf Stapledon, but have long since abandoned any proselytising attempts."

Delegates to the World Convention in London this year will have an opportunity of meeting Bob and his wife when they arrive as part of the North American contingent.

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European Science Fiction

Predicting the future has long been a basic tenet of science fiction writers but predicting the future of science fiction itself has mainly been in the hands of editors and reviewers—after all, they mould the material before and after publication. It is therefore extremely interesting to find one of my own theories coming true, with some surprising repercussions.

In the Spring 1950 Editorial I wrote : " British authors will almost always produce stories written differently (in style and presentation) from American writers, around plots approached from a different mental angle ; a direct result of different environments, customs and conditions, existing in the two countries. Therefore I foresee that the gulf between *New Worlds* and American contemporaries will widen rather than draw closer.

At the time that statement was written Britain was the only country outside U.S.A. where science fiction was being regularly published, although there was a stirring of interest in some of the Continental countries. Today, practically every European country from Portugal right up to Finland is interested in the medium, either produce regular pocketbook novels, have short stories in the general press, or own-language editions of magazines. And the trend is steadily creeping eastward where some science fiction has appeared in Russia (this magazine has a subscriber in Moscow and another in the Ukraine).

Much of this European interest originally stemmed from American sources, firstly through the flood of American pocketbook editions being distributed there and secondly by own-language reprints of some of the American science fiction magazines. France, for instance, publishes *Fiction*, a translation of Tony Boucher's *Magazine Of Fantasy And Science Fiction* Italy has *Urania*, their version of Horace Gold's *Galaxy* ; while Sweden's *Hapna* chooses stories from numerous magazines but with a preference for John Campbell's *Astounding*. Understandably enough, these reprint editions were taken from the main source of supply.

But there is a big change coming over the reading requirements of these European countries ; apart from the natural development of their own writers, who would be more conversant with local tastes, the trend is a marked swing away from American-type science fiction. European readers are finding that there is something fundamentally lacking in the type of stories now being

published in U.S.A. and subsequently in their own countries ; many of them freely admit that so much is taken for granted in contemporary American stories that they are almost impossible to follow. The key to the literary jig-saw is missing.

Why is this ? A widely publicised comment in U.S.A. last year, as an explanation of the probable decline and fall of the magazine market there, was " that science fiction had lost its sense of wonder." And therein lies the answer to the European swing away from American-type stories—the sense of wonder, the growing-up stage (circa 1930-1940) has never been presented to European readers. Without any conception of the formative years of science fiction they have suddenly been presented with a mature technological doctrine in fiction which presupposes that all its readers have grown up with it since its own infancy. Small wonder that they are puzzled and state that there is something missing.

Just to make matters more confusing, American science fiction is in the doldrums, finally bogged down by its own inventiveness, with all the old plots being reworked by new writing techniques in an attempt to find the missing formula which disappeared when the sense of wonder died.

This is where my prediction of 1950 has taken the surprising turn—the Continental swing now favours British science fiction, which we know has not necessarily been following the more rigid requirements of the Americans. More and more British stories are finding their way into translations—conversely, and probably purely coincidental, fewer British writers are appearing in American magazines. With the exception of Arthur Clarke, one seldom sees the names of Wyndham, Christopher, McIntosh, Sellings and other leading British writers on the American contents pages, while our new writers cannot get in at all—in the case of newer writers they simply aren't producing the type of stories required by American editors ; their material is *too simple* !

By American standards our British material is slightly " old hat," yet Lan Wright's " Who Speaks Of Conquest ? " and Kenneth Bulmer's " Green Destiny," to quote but two serials, are stories receiving considerable Continental acclaim. And plenty of our short stories also. Why ? Because they still have a sense of wonder about them !

I am even prepared to make another prediction—within the next seven years British science fiction will predominate in the European market.

John Carnell

Lan Wright's stories concerning the doublecrossing of the Lutherians by Earth ("Fair Exchange," January 1955, and "The Con Game," October 1955) were very well received by our readers and it seemed only fair that he should write a further story in the series that would at least give the Lutherians an opportunity of turning the tables. Whether they do or not is decided in this latest story.

ALL THAT GLITTERS

By Lan Wright

Illustrated by EDDIE

Hendrix was not the sort of man to waste time on the niceties of polite conversation, and for that reason Johnny Dawson said nothing beyond a terse, "How are you, chief?" when he entered Hendrix' office.

Hendrix fixed Dawson with a jaundiced eye and growled, "Lousy," as if he'd invented the word especially for that occasion. His black cigar depressed several degrees in elevation, and Dawson sighed as he noted the preliminary signpost of trouble.

"The Lutherians—" began Hendrix.

Dawson flopped into a chair with an anguished, "Oh no. Not again!"

"—are in trouble," continued Hendrix, ignoring the outburst.



"Look, chief," begged Dawson, leaning forward urgently in his seat, "the next time I tangle with the Lutherians they'll take me apart piece by piece. And I wouldn't blame them after that Elkan business."

"Which is why I picked you," Hendrix told him with a smile. "Now is the time for you to restore your character a bit with Arvan and his people. Besides, you—"

"I know them better than anyone else." Dawson ran a hand wearily through his blonde hair. "I've heard it all before. Okay, tell me all about it."

"Briefly," Hendrix told him, "there's an epidemic broken out on the Lutherians home world that has got right out of hand. We had a call from the Terran ambassador a week ago to the effect that if something wasn't done pretty soon he daren't think what the consequences might be."

Dawson pursed his lips. "What sort of epidemic?"

"We don't know for sure. The first relief teams only left a day or so ago from points in the immediate vicinity of Luther Four. The first Terran ships left four days ago and won't arrive for another two weeks at least, so the only facts we have are what the local ambassador has told us. Apparently it isn't fatal in itself. It lays the Lutherians low for two or three weeks and then they get over it. Then it hits them again and leaves them weaker than before, and that's where the danger lies. The more often they get it the more prone they become to more serious illnesses."

"What about medical treatment?"

"The Lutheran health services are over-run and half of them are too sick themselves to be of any use."

"So?"

"So, we're sending in relief teams of supplies, medicines, doctors, research equipment, the lot. Eight ships have already left Earth and eight more are scheduled to leave as soon as they are ready. Those ships, together with others from the Lyra Group, Centaurus, and a dozen other places all add up to a total force of eighty ships and some twenty thousand personnel. It will be increased if necessary."

Dawson whistled his surprise. "Well, if anything's going to get us back in the Lutherians' good books, then this ought to be it. Where do I come in?"

"You're to act as liaison between the Lutherians and the local relief force. Nominally, and from the administrative side, you will be in charge of the Terran force. You will co-ordinate their resources with the needs of the Lutherians, and iron out any troubles that might arise."

Dawson eyed Hendrix suspiciously. "In the circumstances," he enquired gently, "what trouble could there be?"

Hendrix shrugged and the cigar waggled slightly. "Who knows? Anyway, we want someone on the spot who knows the Lutherians well, and who is known by them."

"I'm that, all right," agreed Dawson grimly. He could see the sense behind such a decision, but after his previous brushes with the Lutherians he doubted whether he was the right man for the job. But, if the SPACE Department said so, then he was in no position to argue.

"We've laid on a special scout ship to get you straight to Luther," Hendrix told him. "With any luck you'll make it in two weeks, and by the time you get there the research sections should have made some progress into solving the problem. I

believe they will be aiming at some form of vaccine that'll be a permanent preventive measure."

Dawson frowned slightly. Somewhere at the back of his mind there was a lurking suspicion, a question that lacked an answer. The Department seemed to be going to a lot of trouble for purely humanitarian reasons, and that didn't seem to be up to their usual machiavelian level. He asked suddenly, "One point, chief. Who pays for all this?"

Hendrix shrugged. "Oh, we'll work something out with the Lutherians when this is all over and they're back on their feet. Anyway, you don't have to worry about it." He rose and offered his hand to Dawson. "With any luck a couple of months should see this thing ended. Have a good trip."

Dawson nodded absently, still bothered by—he knew not what.

"Sure," he said. "Sure. It'll be ducky."

It was Johnny Dawson's first visit to the second planet of the star Luther Four. He had met up with the Lutherians on several previous occasions, true, but his knowledge of their home world was almost non-existent. He knew that the parent star was low in the red giant series, and its size was emphasised by the fact that it was capable of supporting life on its second planet at a distance of some five hundred million miles.

It hovered low in the sky as Dawson's fast cruiser scout landed on the planet. It was a great, red ball that seemed out of all proportion to the amount of heat and light it shed on the scene. The gravity was less than that of Earth, and there was an odd feeling of lightness as he left the ship which didn't fool Dawson one little bit. For all that the lightness and feeling of strength was pleasant, he knew that he would suffer when he returned to Terran conditions once again on the flight home. The alternative to that suffering was to use the exercise machines and the centrifuge chambers which all ships carried in anticipation of lower-than-one gravity worlds. It was one of those cases where the prevention was worse than the cure, and few people took advantage of it.

The Headquarters of the Terran force had been set up at one of the largest space ports on the equatorial region—as near to the central point of the trouble area as possible. The greater part of the native population of the planet was concentrated in the narrow belt which extended for a thousand miles or so on either side of the equator. Beyond that belt the polar regions

began in all their uninhabitable fury—a fury which grew in intensity the nearer to the poles one went. From what he'd heard Dawson doubted if even Terran science, which had conquered Arctica and Antarctica several hundred years earlier, could have made any impression on the bleak desolation of those parts of the Lutherians' home world. It was surprising that such an extensive civilisation had developed on such a world, and it was lucky for the Lutherians that the planet lacked even the merest sign of an axial wobble.

The cruiser scout landed Dawson late in the Lutheran day, and he went straight to the office which the senior scientist of the expedition, Doctor Lomas, had taken over as his centre of operations. As he approached the buildings on the edge of the space field Dawson recognised the odd, square, monotonous, single storied architecture favoured by the Lutherians. Being a short race their ceiling space was rarely more than six to six and a half feet, and the overall effect was slightly claustrophobic to Terrans who topped the five nine mark.

Lomas was a tall, thin man, almost ascetic, with a close-cropped head of red hair, greying at the temples. His eyes were blue and cold, and he wore an expression of continuous doubt as if he didn't believe anything, even when it was proved. He greeted Dawson cordially, but still with the ingrown air of suspicion. Then he remarked, "Well, now you're here perhaps we can go ahead."

Dawson looked at him blankly. "Go ahead? How do you mean, go ahead?"

Lomas shrugged. "Just that. My orders from the SPfICE Department were that no aid was to be given without direct orders from their personal representative. Now you're here—"

"Do you mean to say you've done nothing yet to help these people?" asked Dawson with icy calm.

"Oh, I wouldn't say that. We've distributed a few supplies in the most needy areas, and I've got groups of technicians and scientists working on preliminary experiments to try and find out the nature of the virus we have to contend with."

"How long have you been here?"

"Two weeks, that's all," replied Lomas. "I, personally, have been here five days, but there were groups from Lyra and Merkoll here about ten days before me. We've barely had time to get this base in working order, much less start a full scale aid programme."

Dawson eyed him grimly, and realised that there was little he could say. Lomas was a scientist, a good one by his reputation, but he was no bureaucrat. If the Department told him to do something then he did it by the book irrespective of local conditions. In this case the Department had said to wait.

"Well," Dawson told him. "You can get busy right now on my responsibility. Step up your research groups and get medical teams into the worst areas. I suppose they will be in the cities and main population centres?"

Lomas nodded. "In the rural areas the virus doesn't seem to strike so hard or so often. It's the old story—crowded conditions spread the disease. One problem seems to be the shortage of food. Supply systems are breaking down through lack of people to operate them."

"Use the ship crews," snapped Dawson. "They'll have precious little to do but sit on their backsides while we're here."

"Yes, we could do that," agreed Lomas calmly, "if there was any food to distribute."

Dawson sat stunned for a moment. Lomas smiled grimly, and went on. "The next thing we'll have on our hands will be a planet wide famine."

"I'll get through to Hendrix on Earth," replied Dawson. "I'll tell him the situation and get supplies of foodstuffs sent in by the Department. There must be enough emergency stocks laid down somewhere to cope with a situation like this."

"No good," said Lomas. "Do you think the Department would have overlooked a point like that? They'd have sent foodstuffs with the original relief force if it would have done any good."

"Then why didn't they?"

"Lutherians can't eat Terran food any more than we can eat food from Capella or Lyra. They have their own staple diet, and it isn't based on cereals or grain." He shook his head decisively. "No, they couldn't eat anything that we had laid down for emergency."

Dawson felt a pang of despair run through him. It was a point he should not have missed, and it added another problem to the mounting list.

"What about a synthesis plant?" he asked. "Surely we've got technicians who could whip up some sort of goo that would keep body and soul together, even if it isn't very appetising?"

"Yes, that can be done. It's only a matter of finding out what sort of vitamins, proteins and so on are necessary to the life of the average Lutheran—"

"Then get at it," snapped Dawson. "Heaven knows these things take long enough to get moving. We may have food riots on our hands if we're too late. Have you made any contact with the Lutheran authorities?"

Lomas nodded. "Yes. They appointed a fellow called Arvan to work with us. Odd sort of person. He seems to hate having to accept any sort of help from us even though it's necessary. I wonder—"

"You needn't," broke in Dawson. "He hates our guts, and the same goes for every other Lutheran you're likely to meet. The difference is he speaks our language and makes it strike home."

"But why?"

"Oh, you won't find it in the history books. I've crossed swords with the Lutherians in general and with Arvan in particular twice before, and the results of those meetings weren't exactly calculated to fill their hearts with brotherly love." Dawson shook his head and smiled wryly at Lomas. "We've got quite a mess on our hands, haven't we? Look, you go ahead and do everything you can to ease the position. Get research groups on the track of this virus, and start something on the food synthesis line. I'm going over to see Arvan and try and get something sorted out with him."

"I'll have a messenger take you over," said Lomas.

"You mean he's here?"

"That's right. The Lutheran H.Q. has been set up on the far side of the space port. No sense in it being on the other side of the planet."

The messenger turned out to be a short, wiry crewman from one of the Terran ships. His name was Shapiro, and he drove a ground-car on small cartage and passenger work around the Terran base. While they drove across the two mile wide area of the space port he kept up a rapid fire of comment and information that told Dawson far more than his long interview with Lomas had revealed. It told of the wretched suffering among the native population, of the strict food rationing that had been introduced, of the fear which drove large sections of the population out of the cities and into the rural areas in the hope of escaping the scourge.

"Of course, they don't escape," Shapiro told him sadly. "It just makes things worse because food is shorter and the disease

is spread further. You know, Mister Dawson, there's been some pretty ugly talk in the crew quarters since we got here."

"Such as?" asked Dawson.

Shapiro spat expertly over the side of the ground car. "Well, I may be talking out of turn—"

"Spit the words as well," Dawson told him. "I've got to know what's going on round here as quickly as possible."

"They say that we're sitting back and doing nothing because the Lutherians can't or won't pay for our help."

Dawson went cold inside. "They say that?"

Shapiro shrugged and swung the car around the rear of one of the great ships that rested her bulk on the tarmac. "Looks pretty true, too, you see I was talkin' to one of the radio boys a couple of days back. Seems he was operator on watch when some guy from Earth named Hendrix had a relay with Lomas. This guy Hendrix told Lomas to lay off with the help until you showed up. That seemed like a pretty dead deal with all that we saw going on round here."

"The Department just doesn't know what it's like here." Dawson stopped speaking as he realised he was trying to justify himself as well as those he represented.

The car slid to halt outside one of the low, square buildings on the far side of the landing area, and Shapiro announced, "This is it. This guy, Arvan, is in the third office on the right along the main corridor. I don't reckon you'll see many other natives around, they'll all sick—or out hunting food."

"And Arvan?"

Shapiro shrugged expressively. "He's pretty sick himself, I think, from the look of him. But he never gives up, and he treats me like poison every time I see him."

Dawson smiled and got out of the car. He went in through the low, main door and experienced the faint claustrophobic effect of the low ceiling inside. He went along the widest of four corridors that led off the entrance hall, and knocked on the door that Shapiro had indicated. A raised voice in an alien tongue sounded inside, and Dawson took a chance on it being an invitation to enter. He opened the door and went in.

He recognised Arvan at once, but, to his shock, he knew that the Lutheran had changed since their last encounter over a year before. In some indefinable, alien way he looked older. The normal plump stockiness of the Lutheran build had shrunk to a leaner and less healthy appearance, and the round, moon face had a transparent look about it that emphasised the unnaturally large, black, luminous eyes.

Dawson paused inside the door uncertain what to say and distracted by Arvan's obvious ill health. It was his first sight of a Lutheran who was struck by the virus and the effect was not a pleasant one.

It was Arvan who broke the overlong silence. He said, quietly, "So, we meet again, Mister Dawson." His voice was cold and detached, with an underlying emotion that wasn't lost on Dawson.

He nodded and crossed the room. "In unhappier times, but with happier results, Arvan, I hope."

"You speak, as always, with two tongues," retorted the Lutheran.

Dawson flushed and looked at the floor in sudden confusion. He knew too well that his conscience over past contacts with Arvan could never be clear. He had done a job then—but justification was no excuse either.

"I deserve that, Arvan. I hope that, later on, when all this is over, you will think better of me. The important thing at the moment is to bring aid to your people. Personal bitterness must wait for the time being."

The Lutheran eyed him expressionlessly for a long minute before he nodded. "Your aid will be invaluable provided the price that you place upon it is not too high."

Dawson waved the question of price away by saying, "That, too, can wait until later."

"I wish I could believe that." Even behind the stilted, alien accent Dawson could detect the sarcasm. He waited without speaking and Arvan went on, "I believe that you have brought with you the terms of payment which will be requested before any aid is given."

Dawson whitened under the implied suggestion of blackmail. "That's a damned lie, Arvan. I came only to act as a liaison between you and the Terran relief force. I brought up the question of payment with my superiors before I left Earth, and I was told just what I told you—that the debt is entirely secondary to the act of relief."

"I do not believe you."

"You—!"

"I do not believe you because I think I know what the terms of payment will be. If I am wrong when they are announced then I will apologise, but I do not think I will have to."

Dawson was rapidly losing his temper. He snapped angrily, "You seem to know more than I do, Arvan, and if this is to be

your attitude all through our work together, then I see no point in prolonging these interviews. I'll go ahead with the relief work with as little recourse to you as possible."

Without waiting for a rejoinder he turned and stalked angrily from the room. Outside in the dim, red light of the setting sun, Shapiro was waiting. He cocked an eye at Dawson's white, angry face, and remarked,

"Touched you on the raw, I guess."

Dawson snarled wordlessly and climbed into the ground car where he sat in stony silence while they made the run back across the landing area to the Terran base.

In Lomas' office once again he put an emergency call through to Hendrix on Earth without bothering to find out what time it was. As a result it was more than five minutes before the angry and tousled face of Hendrix swam greyly into view on the small screen on Lomas' desk.

"What the hell. It's three o'clock," growled Hendrix.

"Your after lunch snooze can wait," retorted Dawson.

"In the morning!" Hendrix voice crackled slightly. "All right, what's the trouble?"

"There's an old play by Shakespeare," Dawson told him sweetly, "that has a line in it about there being something rotten in the state of Denmark."

"So?"

"So this damned planet could be called Denmark in my book," Dawson said angrily. "There's a setup here that smells to high heaven, and I thought you might know some answers."

Hendrix turned down the corners of his mouth in a gesture of innocent surprise. "Why me?"

"Look, don't play tag with me. I'm Dawson. Remember? The boy with a question mark in his head. I saw Arvan just now and he's not happy about the question of who and how with regard to payment for all this relief work. I know, and you know, that they won't be in a position to pay in hard cash or trade goods for all the help we're shipping in—at least, not in the next century. Their economy is shot to hell as a result of that Elkan business."

"Let's just say the Department is being soft hearted."

"Soft hearted! That's a laugh. That bunch of crooks don't know the meaning of the word charity."

"They might learn."

Dawson shook his head. "Not in a million years, Hendrix. And just to round the whole thing off, Arvan seems to think he knows what the terms of payment will be, and he isn't happy about it."

"Does he now?" Hendrix eyes opened wide with mock surprise. "Then he knows more than I do. Look, Dawson, just get on with the job of administering that relief force, and I'll handle the Department. Just as soon as I know their decisions I'll advise you. Now," he smiled sarcastically, "how about letting me get back to sleep?"

"I hope your conscience lets you," snapped Dawson. Then he reached over and broke the connection.

The next four weeks passed in a welter of activity for Dawson. Six more ships arrived with supplies and relief groups, and these were sent away to join other groups concentrated in the main centres of population. Lomas' technicians got a synthetic food plant working, and inside three weeks it was turning out some thirty tons of vitaminized food a day.

Food? Dawson had examined a portion of the first day's output and had almost been sick on the spot as the slimy off-white goo oozed into the containers which would transport it to the worst famine areas.

"A pound of that a day will keep a Lutheran alive indefinitely" Lomas told him proudly.

Dawson shivered in disgust. "You mean, they'll actually eat that muck?"

"When you're hungry you'll eat anything."

Apparently Lomas was right for reports of food riots began to slacken off as supplies of synthesised substitute became available. Three other plants were soon established in other parts of the planet, and the immediate danger of world wide starvation was averted.

During the first week Dawson annexed a fast planet scout and got Shapiro to act as pilot. He spent most of his time thereafter touring the planet and co-ordinating the work of the various Terran groups. He found Lomas a good man to work with, someone whom he could leave in charge at the main base while he saw to the more widely spaced effort of the sub groups. Apart from the tiring nature of the self imposed task in addition to the long hours of travelling, Dawson felt the overpowering depression of the great, red sun as it hoisted itself laboriously across the alien sky. The Lutheran day was half as long again as that of

Earth, and it was an enervating task trying to fit in meal times and sleep periods to coincide as nearly as possible with those of the local population.

Each town or city was like the last one he'd visited. The squat, one storied buildings with their oval doors and windows nestled in drab, straight streets and avenues with no individuality. Each house was like its neighbour, and each street was like the one which crossed it. The tour became a panorama of sameness which was as boring as it was depressing.

By the end of that first month, Terran time, things were moving well. Six separate research groups were probing the problem of the virus, and large teams of crewmen from the Terran ships had been dispersed over a wide area to help speed up the production of local natural foodstuffs. Dawson was still working round the clock, snatching sleep in the scout plane when he could, and eating out of packages. But the end result would surely be worth the effort, and the first sign of success was given by Arvan, whose cordiality grew as the days passed. The Terran effort was so big and so well organised that no one who saw it could fail to be impressed.

Dawson's fourth report to Earth was made at the end of the month, and it was the most encouraging to date. Hendrix smiled benignly over the visiphone as he heard that one of the research groups seemed to be on the point of isolating the virus.

"Once that's been done Lomas assures me there'll be little delay in working out some form of vaccine," said Dawson.

"Well, let me know the moment you've got something concrete," Hendrix told him.

"Why the rush?"

"The Department wants to know."

Dawson made a rude noise. "They could wait. The most important thing is to get a vaccine that will clear this thing up in a hurry."

"That's the point," replied Hendrix. "Once we know what it is we've got the production facilities here on Earth to handle it. We could get supplies in bulk to you far quicker than you could set up a large scale manufacturing plant."

"Yes," Dawson nodded dubiously. "I guess so. All right, if that's the way they want it."

"That's the way it'll be," agreed Hendrix.

With the connection to Earth broken Dawson sat back and brooded in Lomas' office. Somewhere at the back of his mind

was a nagging doubt about the whole business. It was too pat—too well organised to ring true. The entire operation had not that air of panic about it that he would have expected. There was an almost military planning in the background. As if someone had laid down a battle area and produced a master plan to the effect that 'here is where we'll fight, and here is where we'll win, preferably next Monday after lunch.'

The door opened and Lomas came in to interrupt his reverie. He eyed Dawson quizzically, and enquired, "Something wrong?"

"No—yes! Oh, hell, I don't know." Dawson slapped the low desk angrily with the flat of his hand. "Those ghouls in the SPACE Department are waiting for something to happen, and I'm damned if I know what."

"You've got the blues. Been working too hard."

Dawson shook his head. "No, that isn't it. I know Hendrix too well. He was like a cat licking its lips over a helpless mouse just now on the phone." He reached for the instrument and called the Transport Section. "Dawson here. Get Shapiro out front with a car on the double . . . Yes, now. I'll be out in two minutes."

Lomas eyed him with raised eyebrows as he replaced the phone. "You sound like a man with a mission. What's the hurry?"

"I'm playing a hunch, Lomas." Dawson made for the door. "Call Arvan for me, will you? Tell him I'll be over right away and ask him not to accept any calls from Earth until I get there."

"What?" Lomas' voice was comical with surprise.

"Just do it," Dawson said, and was gone through the door.

He reached the main entrance just as Shapiro swung the ground car around the corner of the building, and in seconds they were heading across the wide expanse of the space field towards Arvan's office.

Despite his more friendly attitude Arvan looked a worried being. The toll of sickness weighed heavily upon him, and Dawson knew that only his iron will—unusual in one of his race—kept him going. His eyes were black pits of pain and discomfort, and his face an unhealthy grey, thin and drawn, almost unrecognisable from its normal round pudginess.

He motioned Dawson to his usual chair, a low, armless affair, and registered his surprise as Dawson shifted around in front of the desk and out of sight of the view screen of the intercom in front of Arvan.

"Your message puzzled me, Dawson," he remarked tentatively

"Have you had any calls from Earth?" demanded Dawson.

Arvan nodded. "I was just asked to accept a call from Mister Hendrix."

Dawson bared his teeth in a sardonic smile. "I smell a rat, and a big one. What did you do?"

"I had it put back because I was—not available." Arvan managed to summon the ghost of a smile.

Dawson felt a surge of savage delight run through him. His hunch was paying off—and he wondered idly just what sort of payoff it would be. "All right, Arvan. Have it put through now. But don't say I'm here, and don't give any sign that there is anyone in the room with you, all right?"

Arvan looked at him with expressionless black eyes. "I—"
"Please!"

Arvan touched the button of the intercom and spoke in his native tongue. There was a few seconds pause and then the voice of Hendrix echoed tinnily through the room, distorted slightly by the light years of space that intervened.

"Glad to see you again, Arvan. How are things?"

"We are managing, thank you. Your Mister Dawson is doing a very remarkable job, we are most grateful to him."

"Yeah, we'll give him a medal when he gets home," Hendrix' sarcasm wasn't lost on Dawson. "I was talking to him a little while back and he told me that they've almost cracked the virus problem."

There was a pause, and then Arvan remarked unemotionally, "That is good news."

"Uh huh. Thought you'd be pleased. We're getting things moving here on Earth for production facilities for the vaccine to be set up, just as soon as we get the word from Dawson."

Arvan remained silent.

"The Department," went on Hendrix' small voice, "feels that the time has come to discuss the terms of payment—you know, just so that we can have everything on a proper basis. Once they're agreed to we can go ahead and make sure there'll be no hold up in the vaccine shipments."

"I understand." Arvan's voice echoed Dawson's own raging enlightenment.

"After all, we wouldn't want anything to happen that would stand in the way of this thing being cleared up."

"Of course not."

"We know that your economic situation isn't too good at the moment, and the question of monetary settlement is not possible. However, we feel that the whole thing can be settled amicably if your government agrees to the legal transfer to us of one of the outlying mineral worlds over which you've recently obtained control."

There was a deathly silence through the room. Dawson sat tense in his chair, anger and disbelief chasing themselves in tortuous threads through his being. His hunch had been right. Hendrix had jumped the gun for some reason best known to himself, and here, out in the open, was the most outrageous piece of blackmail that Dawson had ever come across.

The silence was broken at last by Arvan, who asked quietly, "Would you, Mister Hendrix, be referring to the planet Shikor Three?"

Hendrix chuckled tinnily. "In one, Arvan. Look, you've got no resources to develop that world. It will be better all round if we take it over and run it as a growing economic concern. You know as well as I do that under Galactic law the native population must be catered for, they've got to be educated, helped economically. Why, it'll cost billions, and your race haven't got the resources to back such a programme. We have."

Arvan's face was still without emotion as he said, "Of course, you know of the vast mineral deposits in which Shikor Three abounds."

"We're not stupid. Sure, we've heard about this—this—what do the natives call it?—god metal:"

"And you know of the priest-ridden religious society which works the deposits?"

"Naturally. We know that they turn out the toughest and most pliable metal ever discovered, and we know exactly what use we can find for such a metal."

Arvan nodded slowly. Surprisingly, thought Dawson, he didn't seem too upset about the all too obvious blackmail to which Hendrix was submitting him. His eyes left the screen and studied the top of the low desk before him. After a moment he looked at the screen again.

"Do you also know, Mister Hendrix, that we have registered our ownership of the methods by which the crude ore is treated? The Galactic Bureau bears witness to the fact that we and we alone, outside the natives of Shikor Three, can propagate the technical methods by which the refined metal is produced."

Hendrix chuckled drily. "The method won't do you much good without the planet, will it, Arvan? Look, we're not interested in anything but the legal transfer of the planet to us. We've got the science and technology to make what we want of the mineral ore. Probably we'll do a better job than those Shikorian savages before we're through. It will be a boon to the whole Galaxy if we take over the development."

"It will give you large profits, too," added Arvan coldly.

"Well, sure. We don't aim to lose on the deal. Just give us the planet in return for the vaccine and all the relief supplies we've poured in to your world and we'll call the whole thing quits. That's a fair exchange."

Dawson sat quiet, not daring to move. Inside him overwhelming rage curdled his stomach so that he felt almost physically sick with the force of his emotions. Arvan seemed as quiet as he was seething. The Lutheran seemed to consider the matter for several long minutes, and then he said, "I cannot give a decision myself. I shall have to place the matter before my government, and abide by their findings."

"Call me," Hendrix told him briefly. "Just as soon as I get the all clear we'll ship off the vaccine. It's as easy as that."

Arvan reached out stiffly and broke the connection. Then his shocked working face turned on Dawson.

"The dirty, stinking son of a space rat," whispered Dawson as he rose, white faced from the chair. "I thought I knew Hendrix, but this—" The words choked in his throat.

"How close are you to isolating the virus?" Arvan's voice was cold and accusing.

"Not that close," snapped Dawson. "I don't know but what it may be weeks. Sure, we've had hopeful results—but not as hopeful as Hendrix made them sound. Unless—" He choked off a sudden horrible thought that rose to his lips almost before he could stifle it.

"Unless?" prompted Arvan.

Dawson licked his dry lips and sought frantically for any other reason but the one which whirled through his frantic brain. He drew a deep, shuddering breath, and said, "Unless he is using it as a lever against your race, Arvan. That's it—a political screw to get you to sign over Shikor Three."

Arvan nodded slowly, apparently convinced by the explanation. Dawson sat down again still shaken by the revelation contained in Hendrix' last words as they echoed again through his mind.

'Just as soon as I get the all clear we'll ship off the vaccine.' There was no qualification. Just a bald statement, the words of a man who knew more than he was supposed to know.

"I came over here on a hunch, Arvan," he said huskily. "It looks as if my hunch was right." He rubbed a hand across his eyes in a gesture of utter weariness as the hectic rush of the past weeks caught up with him. "I've been a cat's paw in this whole thing up to now, but the picture is clearing. The next thing you can do is tell me more about this planet, Shikor Three. I never heard of it until I got into this office."

Arvan's black eyes were fixed on him passively. "I have experienced the trickery of your race before, Mister Dawson," he began.

"Not this time, Arvan," replied Dawson. "I'm on your side. Just tell me about Shikor Three." He laughed. "If you can't I'll have to call Hendrix and ask him—and that would be funny."

An hour later Dawson stormed into Lomas' office. That he was good and angry was too obvious, and there was a wicked glint in his eyes that boded ill for someone. Lomas sat back in his chair and waited for the storm.

Dawson placed his hands flat on the desk and leaned low towards the Doctor. "You, Doctor Lomas," he stated, "are a bastard."

"I beg your pardon!"

"And so am I," went on Dawson. "And so is every member of the human race—only most of them don't know it."

"I suppose an explanation is forthcoming," said Lomas stiffly.

"Later, later." Dawson waved the idea aside. "I'm going to ask you to do a little research on your own into this virus question."

"What? Dammit, I'm no lab monkey—"

"You don't need to be. Have you got access to any records of Terran viruses and diseases?"

"Well, yes. There's bound to be some text books—"

"Comprehensive?"

"I imagine so."

"Then get them and retire to your private quarters and look for something of Terran origin which isn't fatal, only debilitating. Something which is recurrent and which is in line with what we know about this thing here, on Luther. Preferably it will be one which has been isolated on Earth during recorded medical history, and subsequently conquered and wiped out."

Lomas was gaping at him with open mouthed horror by the time he had finished.

"Are you mad—"

"I don't think so."

"Do you know what you're suggesting?"

"You tell me," ordered Dawson softly.

"You—you're trying to tell me that—that this planet has been seeded with a plague to which Terrans are now immune."

"Right."

Lomas sat stunned, seemingly unable to grasp the real horror of the idea which Dawson has suggested. He stirred at last and whispered, "But—that's racial murder."

"Is it? How many people have died from the virus?"

"Well—" Lomas flapped one hand vaguely.

"I'll tell you," went on Dawson grimly. "Not one. Oh, I know," he waved an interruption aside, "they've died from other things and many of them are on a starvation diet because of the disruption of their food supplies. The economy of the whole planet is cracked wider than a broken egg, but you can't prove that one Lutheran has actually died because he had the virus."

"Are you saying that some responsible authority on Earth has deliberately spread infection on this planet for the purpose of some form of gain?" Lomas' voice was starkly incredulous. "I just don't believe it."

"You mean you don't want to." Dawson stretched his aching body. "How long will it take you to check your records with what we know of the virus here."

"I don't know. A week maybe. Perhaps longer."

"Make it sooner," Dawson said. "And when you've found it call me at once. I'm sticking to the base for a spell. Drop everything else and stick with those records. If anything comes up I'll handle it."

It took three days.

Dawson was sound asleep in the middle of a Lutheran night when the visiphone beside his bed buzzed its warning note. He switched on the light and reached muzzily for the set. As he pressed the receive switch the small face of Lomas swam on to the screen. Sleep-ridden though he was Dawson was shocked at the change in the man. He looked as if he hadn't been to bed for a month, and his hair was straggled and untidy over a gaunt and haggard face.

"I found it," he told Dawson in a voice dead of all emotion.

Dawson sighed and relaxed. He felt suddenly empty and drained now that theory had become fact. "Give me the details," he said.

"It's a virus condition all right," Lomas told him. "One which was wiped out over two centuries ago. It still turns up in out of the way places on Earth, but to all intents and purposes it barely exists."

"The name?"

"Nothing well known. In fact I've never heard of it, and I'm supposed to be an expert." He laughed a tired sound with a high note of hysteria in it. "Acute coryza with attendant lachrymation, general symptoms of headache, fever, sickness and general debility. The ordinary name for it was just 'head cold'—nothing serious—"

"To us, anyway. What about the Lutherians?" asked Dawson.

"It affects them differently, of course. Their glandular structure is different to ours. They don't get the lachrymation or the fever, but the overall debility is more marked and it weakens them considerably."

"What about the cure?"

"Easy enough, now we know what it is. We could make small quantities of vaccine here, on the planet, but—"

"But Earth can do it quicker?"

"Yes, of course."

"Do you think you can lead your research groups towards a more rapid isolation of the virus without giving this whole thing away?"

"You don't want them told?"

Dawson shook his head mutely. "This is something we've got to carry ourselves, Lomas. If it ever got back to Arvan and his people, and they took it before the Galactic Council—" He drew a long breath. "I don't need to tell you what may happen."

Lomas' face bore a tortured, hunted look. He shook his head dumbly from side to side as though looking for a way of escape. "Oh, God!"

"Brace up, Lomas. Get to bed and sleep for a few hours. You'll feel better. In the morning start leading your research boys in the right direction. With luck we'll have this whole mess sorted out in a few days."

Dawson switched off and lay back in bed. The whole story was before him now in all his horrible detail, but oddly, he felt

better now that it was out in the open. At least he knew where he stood and exactly what situation he faced. All he could hope for was that no one, outside of Lomas and himself, stumbled on the secret of the virus. It was, he supposed, unlikely, for Lomas was one of the leading men in the field and he had never heard of it before. Dawson wondered just who was the machiavelian brain in the SPACE Department at the back of it? Hendrix wasn't high enough in the hierarchy to be responsible, but, even so, Dawson relished the moment when he could tell his superior just how much he had ferreted out. The thought comforted him until sleep came again.

It took Lomas two days to lead his research groups further along the path which they had already started. He caught up with Dawson at one of the Terran outlying depots where he had been called to clear up local supply difficulties. Hardly had Dawson stepped from his scout when the local doctor in charge, a young man of negroid descent named Carter, told him that Lomas had been on the intercom barely an hour earlier with a request that Dawson call him at once.

Dawson went straight to Carter's tiny, low-roofed office and put in a call to Lomas. The Doctor looked better than when Dawson had seen him a day earlier. He was brighter and his face had lost its wan, hunted look.

"We've isolated it," were Lomas' first words, and for one heart-stopping moment Dawson thought he was going to make some further remark that would give the whole game away to the listening Carter. Lomas wasn't that silly. "It's been a long haul, but my boys finally did it, Dawson. What shall we do now?"

"Good work," smiled Dawson. "Put a call through to Hendrix on Earth, give him the details and ask how long it'll be before we can expect bulk supplies. With luck it shouldn't take more than a month Terran time."

Lomas nodded. "Right. Anything else?"

"Yes, call Arvan for me. Tell him I'm coming straight back and should be there later today. If Hendrix contacts him he's to say that his government haven't yet made their decision, and as soon as they do it will be conveyed to Hendrix."

Lomas jotted notes on a piece of paper off screen and then nodded. "All right. I shan't be sorry to clear this mess up and get back home. I feel as if I'm sitting on a volcano."

Dawson smiled grimly. "We both are," he replied.

Outside Carter's office again Dawson said to the negro, "I'll have to head straight back, Carter. Lomas needs me. You'll have to handle things here as best you can for the time being. It shouldn't be so bad now that you know the time lapse will be small from now on. We should get vaccine supplies through in a week or so local time."

Carter nodded. "I was beginning to think this was one job we'd never crack."

Dawson took off five minutes later, and Shapiro pushed the little scout hard to get back to H.Q. before the Lutheran night came down.

It was still light when they touched down, but dusk was falling as the giant ball of the blood red sun sank towards the horizon, and a chill wind blew across the landing area from the northern ice belts.

Dawson told Shapiro to put the scout to bed and to fetch him in a ground car in half an hour. Then he went into the low building that housed Arvan's office.

The Lutheran was resting on a low divan when Dawson went in but he rose and greeted the Earthman cordially enough. He sat behind his desk looking brighter than he had done for several days, even though the toll of sickness was written plainly upon his putty coloured face.

"Did Lomas call you?" Dawson wasted no time on polite formalities.

Arvan nodded. "I am most grateful for the relief of the vaccine which Doctor Lomas and his men have found—"

"Yes, sure." Dawson waved the platitudes aside. "Arvan, you know as well as I do that Hendrix and his superiors on Earth tried to jump the gun on you. The plain fact is that they tried to make political capital out of your misery."

"That is not new," replied Arvan coldly. "This time, though, it has not worked." A ghost of a smile flitted across his face.

"You mean you're not giving up Shikor Three?"

"Oh, yes. Your people are welcome to the planet, of course. We have possession of the process for the treatment of the mineral ore. That is all we wanted. If, to obtain your help, we are forced to give up our rights to a small world such as Shikor Three," he shrugged, an oddly human gesture, "then we have little choice."

Dawson eyed him in sheer bewilderment. He had expected at least some token resistance to Hendrix' blackmail, but from Arvan's attitude it was clear that the Lutherians were going to accept, without question, the terms requested. The whole business was getting beyond him. Earth wanted the planet but not the process, and now Arvan was telling him that the Lutherians wanted the process but not the planet. He couldn't for the life of him see that the one was any use without the other—unless Hendrix was correct in his assumption that Terran scientists could manage without the process.

With an effort he brought his mind back to the immediate problems, and said, "I take it then that you are going to call Hendrix and accept his terms?"

"I have already communicated my government's decision to Mister Hendrix."

"What?" Dawson was dumbfounded. "But—"

"Doctor Lomas gave me your message," stated Arvan calmly. "But I chose to disregard your request since I was not certain what your proposals would be."

"I was going to try and help you out," Dawson told him grimly. He waved a hand in vague dismissal of the idea. "Never mind. It's too late now."

"How could you have helped us in the circumstances?"

"I intended helping you negotiate a joint ownership deal with the Terran authorities over Shikor Three. That way you'd have had a half interest in the process and the mineral rights." He shrugged. "Still—"

"You would have done that?" Arvan eyed him incredulously.

"But why?"

"Call it conscience, I don't know. It's too late now. What about the terms of the agreement you've committed yourselves to?"

Arvan's smile was thin and wintry. "They have been accepted by Mister Hendrix after consultation with his superiors. We agreed to cede Shikor Three in return for Terran relief and help in the present crisis, but in addition we required a payment in value which would enable us to reconstruct our basic economy on new lines. Our present economy, based as it is—"

"On copper," interrupted Dawson impatiently. "Spare me the lecture, Arvan. Get to the point."

"We decided to re-assess our wealth, such as it is, and to bring it into line with that of Earth. That way we could once again enter into Galactic trade and commerce on the basis of equality

with other races. To that end we requested that a payment of fifty tons of uranium—"

"What?" howled Dawson.

"Mister Hendrix seemed a little upset as well," remarked Arvan.

"But—fifty tons of uranium! That's—that's about four percent of Earth's strategic reserve."

"So I believe."

"And they agreed?"

"He called me less than half an hour ago to tell me that the payment would be made at the same time as the first consignment of vaccine was delivered."

Dawson sank back in the low chair stunned and shocked by the bewildering turn of events. While he'd been flying half round the planet trying to stave off a load of trouble, Arvan had quietly gone about things in his own way and taken Hendrix for a ride. However valuable the mineral deposits on Shikor Three turned out to be, the transfer of fifty tons of uranium was no small matter. It was large enough to enable the Lutherians to buy their way back into Galactic trade markets once again. It would strengthen their whole economy and give them an entirely fresh start—and they still had a bargaining point by their possession of the technical process they'd got from the Shikorian natives, if Terran scientists hit a brick wall.

"They must have wanted that planet awfully badly," breathed Dawson.

"They did," agreed Arvan. "Much more than we did."

Dawson eyed him quickly. There was an alien expression of smug contentment which even the ravages of illness could not hide, and the tone of Arvan's voice did not pass him by entirely.

"When do you return to Earth, Mister Dawson?" Arvan enquired after a moment's pause.

"Oh, I don't know. I'll report to Hendrix and tie up a few odds and ends. Lomas can carry on here until the vaccine arrives. I reckon I could leave in a few days."

"Your homeward route would take you quite close to Shikor Three," remarked Arvan. "It would not be far out of your way to call there. I would provide you with necessary documents to our officials there."

"What the hell do I want to visit that pest hole for?" asked Dawson sourly. "The damned place has caused enough trouble."

"Nevertheless, you might find it interesting. You could take home to your superiors a sample of the metallic ore to which they have now become owners."

Hendrix' office hadn't changed a bit, and neither had Hendrix—even though Dawson had prayed all the way home that he might have done. His eyes were still bright and beady, his cigar still long and black. He was the original caricature of the successful business man, and by the way he greeted Dawson their last meeting might have been only a day earlier instead of over four months.

"You did a good job," were his first complimentary words.

"So did you," snapped Dawson.

Hendrix' black eyes fixed him with suspicion and surprise. "Hey, something's biting the boy. You don't sound good, Dawson."

"I'm not," retorted Dawson sourly. "I'm sick."

"Sorry to hear it. What's the trouble?"

"I've got virus infection. It's called a head cold, I believe."

Hendrix stared at him, silent, implacable and unbelieving.

"Scientists call it coryza, I'm told," went on Dawson with studied unconcern.

"Who else knows about this?" rasped Hendrix icily.

"Me and Lomas. It's not the sort of thing I care to broadcast," replied Dawson.

"Lomas I can fix." Hendrix relaxed slightly in his chair and folded his hands on the desk before him. His cigar protruded at a dangerous angle. "We're smart today, aren't we, Dawson?" he remarked softly.

"Damn sight smarter than I was when I took the job," retorted Dawson. "Of all the filthy, lowdown tricks this one takes the cake. I've done some dirty jobs for you in the past, chief, but this—" He shook his head in disgust.

"You going soft?" queried Hendrix. "What the hell do you think this is? A tea party? Sure, it's a rotten game, any kind of progress is ninety percent rottenness." He leaned back in his chair and swung round so that his back was to Dawson. "If Earth is to keep ahead in this rat race of a Galaxy we've got to be tough and hard—"

"You call it being tough and hard deliberately seeding a planet with a virus to gain your own ends?" snarled Dawson.

Hendrix swung back towards him viciously. "You listen to me, Dawson," he snapped. "The Lutherians were economically

incapable of exploiting Shikor Three. Sooner or later they'd have been forced to sell out the whole business to the highest bidder and if that had happened Earth would have been at the bottom of the heap. They don't love us, and my guess is that they'd have seen us in hell before they agreed to sell to us—highest offer or not. There are plenty of other races waiting to get a head start over us."

"That still doesn't justify—"

"Whose talking about justification?" roared Hendrix. "The Universe is for the strong, not the weak—and the Lutherians are weak. Sure we pulled a trick on them, but if we hadn't done it first someone else would have tried it. We got in first that's all."

"And it cost you fifty tons of uranium," grinned Dawson coldly. "I bet that hit the Department where it hurt most."

"It was worth twice that."

"I'm glad you think so." Dawson fished inside his jerkin and took out a rolled plastic bundle. "I stopped off at Shikor Three on my way home and took a look at our new possessions. Pretty place. They have cannibalism and human sacrifice. They live in glorified holes in the ground, and the only thing they do well is smelt metallic ore." He unrolled the bundle and took out a lump of reddish brown rock some six inches round. It was pitted and scarred, irregular in shape and it lay inert on the desk as Dawson placed it before Hendrix. "Arvan suggested that you might like a sample of the precious metal you bought."

Hendrix picked it up and weighed it in his hand. "So this is what all the fuss was about." He chuckled. "It's a pity we couldn't get the process as well, but I guess our research labs can handle it from now on. The Lutherians must have been pretty upset at having to give up a whole planet of the stuff."

"On the contrary," grinned Dawson. "They didn't mind a bit."

"Fools," was Hendrix only comment. "The next thing will be to name the confounded stuff." He cocked a wicked eye at Dawson. "In commemoration of your part in all this, how about Dawsonium?"

Dawson yawned elaborately and shook his head. "No thanks, chief. I think the original name will still do as well as any."

Something in his voice wiped the pleasure from Hendrix' face. His eyes narrowed in sudden suspicion.

"What do you mean—the original name?"

"The one is has always been known by," replied Dawson with mild surprise. "I don't see anything wrong with the name Iron Ore."

The silence that followed was deathly, and was broken only by a loud thump as the piece of ore dropped from Hendrix' nerveless fingers on to the desk top. The cigar followed it from his open lips a bare second later.

Dawson got up quietly from his chair and made his way to the office door.

"Be seeing you, chief," he said happily.

As he closed the door gently behind him his opinion of Hendrix rose by several degrees as gusts of joyous, hysterical laughter echoed through the outer office.

Lan Wright

THE LITERARY LINE-UP

Next month's issue has a wide variety of short and long stories now that our current serial has finished this month. The lead novelette, "Misfit" by Alan Barclay (who has been filling in the winter writing technical articles for other markets) produces some interesting and unusual ideas revolving round a colony on Mars attempting to repel a commando raid from Earth. Logically the invaders obtain a foothold on the planet, but thereafter things become particularly troublesome—especially regarding transport.

Short stories are all by popular authors—John Boland, Francis G. Rayer, John Brunner, and another Bob Silverberg story, and Kenneth Johns has the first of a two-part article dealing with the future possibilities of nuclear navies and what their development will mean to ocean warfare.

Story ratings for No. 56 were :

- | | | | | | |
|-----------------------------------|---|---|---|---|------------------|
| 1. On The Average | - | - | - | - | Frank B. Bryning |
| 2. The Lights Outside The Windows | - | | | | James White |
| 3. Unit | - | - | - | - | J. T. McIntosh |
| 4. The Greater Ideal | - | - | - | - | Alan Guthrie |
| 5. Alone | - | - | - | - | Bertram Chandler |
| 6. Guess Who ? | - | - | - | - | Philip E. High |

By 'normal' standards — that is averagely human — the dividing line between sanity and insanity is clearly marked. But who shall say that they are expert enough to decide ? And given the expert, who shall decide his sanity ?

THE MAN FROM TOOMBLA

By John Boland

His sight was misty, and his brain felt as though it were stuffed with cotton-wool. He was aware of movements round him, of various sounds, and of voices, muffled voices. He opened his eyes again and now saw clearly the white-clad figure leaning over him. "Wh—where am I?" he whispered.

The white-clad man laughed. "Still on Earth, old man, still on Earth!"

Doctor Harvey Greeson studied the typewritten sheets, his thin face disapproving. "Frankly, Jones," he said to the man on the other side of the desk, "frankly, I don't know why you considered it worth while wasting my time—"

Doctor Jones flushed. "In my opinion, sir, there is something new in this case—something that hasn't been met up with before, here or anywhere."

Greeson frowned. "You are young, Jones, and you are new here, therefore I will overlook your impertinence this time." He placed the tips of his fingers together and spoke over them. "Let me remind you that I am in charge here."

Jones swallowed. "I am aware of the fact, sir . . . But this case . . . There are so many interesting factors. An unknown man who claims that he lived in a place called Toombla . . . There is no such place, sir."

"I am aware of the fact, sir," Greeson said acidly, but his tone failed to halt Jones's enthusiasm.

"Sir," he said eagerly, "if this man Rath claimed to be Napoleon, or if he claimed that he'd lived on Saturn, then it would be perfectly straightforward manic delusion."

"Are you trying to teach me my profession, Jones?"

"No, sir, of course not. But this Toombla business, sir. He's *invented* the place! That's what I find so interesting."

Greeson considered the statement. It was true enough. Plenty of unbalanced people imagined they lived in a specific place—on Mars, on a blade of grass, in a mousehole—it could be anywhere. But there was always one constant factor: the places where such deluded persons imagined they lived always *existed*—however bizarre the choice. Off-hand he couldn't recall any report of an unbalanced person *inventing* a locality in which to live his clouded dream of an existence.

"Very well, Jones, I'll look at the man tomorrow . . . Not that I can waste my time on every piece of human flotsam the authorities throw to us."

The unknown man had been picked up by a police patrol car in the early hours, dazed and wandering. He was about six feet tall, powerfully built, with yellow hair and eyes so light-blue that they appeared to be almost white. The man was naked, and he had been clutching a metal cube in his right hand. Beyond that, nothing was known.

As Doctor Greeson approached the man's bed-side, the man looked up eagerly. "Have you come to let me out?" he asked. "I must find my way back . . . I've got to find my way back."

The psychiatrist pulled up a chair beside the bed and sat down, switching on his charm as he did so. An hour later he was still pouring out charm in unabated quantity, and the patient was beginning to respond. By the end of the session Greeson was intrigued.

The man couldn't explain how he came to be found, but he could and did describe what he claimed was his former home. He came, he said, from a place called Toombla, and his name was Rath. The last thing he remembered of his old life was driving home after a day's work. The car had skidded and hit

a tree. Rath had blacked out, and when he came to he found himself lying in bed—the bed he was in now.

Greeson pondered the problem, then arranged for the man to be transferred to another ward. The doctor had a feeling that Jones was right—that Rath's case would make medical history—and if there was any glory going, Greeson intended that all of it should fall to him. By moving Rath to another ward, it would take him out of Jones' sphere. Greeson nodded to himself. It would be a classic case, all right. Rath's description of Toombla—vivid enough to make Greeson feel that he himself had visited the place—would be more than enough to rouse interest. In all the detailed description Rath had given, there was not one single incongruity ; everything was logical, with the logic of a sane mind.

In the days that followed, his excitement grew. Rath showed no trace of hysteria ; there was no evidence of physical violence. The man's reflexes were normal. But his answers in a word-association test made nonsense. On the showing of that particular test the man was a moron ; yet the wave-patterns of his brain showed normal and, after he had undergone the Maudley-Rhinson tests, he was rated at I.Q. 180.

That night Doctor Greeson's sleep was made splendid by dreams of fame—the fame that was going to be thrust on him when he released Rath's case history. In all the medical annals that dealt with mental disorders, there was no case to parallel Rath's. Even when he woke he still basked in the glorious anticipation.

After breakfast he went to his study, then walked from his house to the Administration Block, thinking over Rath's behaviour. Rath's eating habits were somewhat odd, for he ate only uncooked vegetables and drank only water. At first the male nurses had thought he was refusing to eat, but apparently cooked food, and meat especially, disgusted him.

The psychiatrist sat down at his desk. It was all very well to gain fame by discovering a new form of mental disorder, but if he could at the same time show that he had produced a cure for it as well . . . ! If he could do that, his name would never be forgotten. He lit another cigarette, then jolted forward, the smoke was going down the wrong way and making him choke. Suppose Rath was only faking madness ! Suppose Rath was really sane !

He mopped his brow, mentally checking over each point. It could be ! It so easily could be ! Suppose, for example, that Rath had committed a murder . . . Suppose he was protecting himself by providing a ready-made form of defence ? Greeson wiped the sudden sweat from his forehead and picked up the telephone. If Rath was making a fool out of him . . . !

But if Rath had committed a major crime, it must be one that had not yet been discovered by the police, for although they were very interested in Doctor Greeson's suspicion they could find nothing to substantiate it. However, their failure did nothing to eradicate the doctor's uneasy feelings concerning this particular patient, and for a time he did not visit him again.

Finally, Greeson's pride made him renew the visits. The man Rath might be a criminal ; if he were, Greeson would unmask him. True, he would not get fame from such a deed, but he would get publicity. He hungered for the chance of going into a public place and being recognised by everyone ; he could imagine nothing more wonderful.

In his new resolve, Greeson went to see Rath, prepared to administer shock treatment. He stood outside the door leading to the ward, then went back to his own office. It would be more effective to have Rath brought there. Ten minutes later Rath entered, escorted by two burly attendants.

"Well, Mr. Rath," Greeson said bluntly, "I've got bad news for you. There's nothing I can do to help you." Rath, his expression unchanged, remained silent. "You don't seem to have taken in what I said . . . ?"

The big man shrugged. "I knew you couldn't help me."

Greeson smiled thinly. "How did you know that ?"

"Because you have not the intelligence."

The doctor flushed, his lips writhing open to display well-tended but irregular teeth. "I apologise if my intelligence fails to impress you," he said heavily.

"It is not your fault," Rath said simply, ignoring the sarcasm. "It is simply that your civilisation is so far behind that of Toombla."

Leaning forward, Greeson said venomously : "Listen to me, Rath, or whatever you call yourself. I don't know what your game is—"

"I am playing no game," Rath answered. "All I wish is that I might return to Toombla."

Greeson made no attempt to keep the satisfaction from his voice. "So you want to get back to Toombla, do you! Well, Rath, I've got more bad news for you. You'll never go there or anywhere else. You're going to spend the rest of your natural life locked up in this hospital!" He paused. "It's worse than being sentenced to death for murder, isn't it?" He put emphasis on the word 'murder' but there was no reaction. "So you see, Rath, you might as well be sensible."

"Sensible?"

"Admit that I've called your bluff. You know that I can have you committed for life, don't you? And I will do that very thing, Rath, unless you tell me the truth."

Rath sighed hopelessly. "I *have* told you the truth, but you would not believe it . . . Why should you? It is so difficult to understand how I came to be here . . . But if only I had my transmitter . . .!"

"Your transmitter?" Greeson leaned forward again. "You are a radio technician?"

"Radio . . .? I do not understand."

"Aren't you talking about a radio transmitter?"

"No. My space-shift transmitter."

Greeson's eyes narrowed. Was the patient trying a new bluff, or had he mentioned the transmitter before? He stared over the patient's shoulder, looking at the two attendants. Both of them were blank-faced and shook their heads. Greeson relaxed. So this was something new, eh! "Tell me, Rath," he said. "What does a space-shift transmitter do?"

"It enables one to escape from danger."

Escape from danger! Fierce satisfaction flooded into the doctor's mind. Now he was on the track of something recognisable. Rath *was* hiding from some form or other of danger, and his mind had conjured up a gadget that symbolised escape from that danger. The man was mentally unbalanced after all! Greeson signed to the attendants and they took Rath away, leaving the doctor to consider the next move.

He decided upon hypnosis. Normally he had very little time for it, considering it very little better than a parlour trick, but now he felt was a good time to put aside his prejudice.

Opening the case of his gold hunter, Greeson concentrated a flicker of reflected light across Rath's eyes. "You are going to sleep, my friend," he murmured softly. "Going to sleep . . . There is nothing to fear. Just look at the light and all will be

well, all will be well. You are going to sleep . . . sleep . . . sleep." The man on the couch was an easy subject. Without the slightest struggle he allowed himself to be controlled.

"You are going to dream, my friend, and you will tell me all about your dreams."

The psychiatrist waited a full minute. "Do you see anything?"

Rath began to mumble, then his voice was clear. "There is a house, a green-coloured house, with a flat roof. The house is a cube ; the roof is flat, there are no doors, no windows. There is someone behind me, trying to hurt me . . ." He began to sob. "I must get into the house ! But there is no door, no window. If only I can get into the house I shall be safe . . . safe !"

The patient was beginning to scream when Greeson leaned over him. "Wake up ! When you wake you will tell me all about your dream . . . *Wake up !*"

Rath started awake, his frightened gaze searching the small room in which he lay, then he subsided. "Well?" Doctor Greeson demanded. "What did you dream?"

"There was a house . . . painted green—"

"Was green the only colour you saw?"

"Yes . . . yes, I think so." Rath's forehead wrinkled as he strove to remember. "No, there was another colour, red." He stared down at his hands. "Red. I was all covered in red."

"Ah !" This was even better than Greeson had dared hope, for it made a perfect pattern. Rath had dreamed that he was covered in red because his conscience was troubled over some act of violence planned or committed. The red was, of course, a simple substitution for blood. Rath's subconscious judged him guilty, and sentenced him to be locked out from society—which was represented by the symbolic house that was covered in green, the colour of peace. It was a neat interpretation.

But the main value of the session had been in showing that the transmitter was an invention of Rath's conscious mind. There had been nothing in the dream . . . Greeson frowned. Rath had mentioned something about the house being shaped like a cube . . . And when Rath had been picked up, naked and wandering, he'd had a cube of metal clutched in his hand !

"You didn't dream about your space-shift transmitter, my friend."

"I try not to think of it at all. That way madness lies."

"Nevertheless, we must discuss it." It would be interesting to see what further fantasies the man dreamed up, and if he

were kept talking, he might betray himself inadvertently. "Tell me, Rath, what does this thing, this space-shift gadget—how does it work?"

"I don't know. I am not a continuum engineer."

"But you use it?"

"No, I've never used one."

"I see. But you own one?"

"Of course. Everyone in Toombla does."

"Is it big?"

"No, quite small. About this size." Rath held the tips of his thumb and first finger about three inches apart.

"I see," Greeson said solemnly. He stood up. "Very well. I think that will be all for this time."

From a drawer in his desk Greeson took the metal cube and placed it on the blotter. Three and a half inches the sides of the cube measured; its corners rounded. He weighed it in his hand. Not light enough for aluminium, it certainly wasn't heavy enough to be made of steel, unless it was hollow.

Once again he hefted it. Could it be a murder weapon? Had Rath used it to kill someone—smashing in someone's skull with it? It was possible, for it seemed probable that Rath had now sublimated it into a symbol of something that would release him from a burdensome relationship. Was the cube, to Rath, a key?

He had Rath in for another session of questioning. "I want to know more about that—that gadget of yours, Rath."

Rath shrugged. "What? I've already told you that I don't know how it works. All I know is that they do."

"I see. Very well, tell me what they do."

"I've already told you that, as well. When you are in danger and there doesn't seem any way out, you use the transmitter."

"And what does that do?"

"It passes your body into the fourth dimension for a fraction of a second, and then you return, but at a different point in space. When you come back you're at some place well away from the danger that had threatened. You might have shifted a mile, maybe ten miles. You can't guarantee what will happen."

"I see. And you only do this when you are in danger?"

"Yes, of course." Rath spoke as though he were addressing a somewhat backward child. "If you use it any other time there is no knowing what might happen. It's one of the first things we are taught."

"We?"

"The citizens of Toombla."

Greeson kept his face impassive. This was the first time that Rath had mentioned any other inhabitants in his imaginary world. "So there are other people living in Toombla?"

The big man was scornful. "You didn't think I lived in a world of my own, did you?"

Greeson repressed a smile. "Is it difficult to operate the space-shift thing?"

"Of course not. It has to be made as simple as possible, because its whole function is to be used in a split-second."

The doctor nodded. It was a logical answer, precisely what he would have expected. "And how is it operated?"

"The transmitter?" Rath shrugged. "It is easy. You press it against your forehead and then turn the cube quickly, keeping it pressed against the skin all the time."

Greeson kept his face straight. "Is that all?"

"Yes."

"I see. So if I gave you your transmitter, all you'd have to do would be to press it against your forehead, and you'd escape out of here?"

"Yes."

"Then I think I shall get you to demonstrate."

"How can I—" Hope dawned on his face. "You—you mean you have a transmitter?"

"I have yours."

Rath began to cry, tears streaming down his cheeks. "Thank the gods!" he said brokenly. "I—I must have grabbed at it while the car was skidding." Making no attempt to wipe the tears from his face, he held out a hand. "You will please give it to me, Doctor, and I will go back to the world where I belong."

It was rather mystifying. Greeson had expected quite a different reaction. He had thought that Rath would be confused by the mention of having the cube given to him. It would have been more logical if Rath, faced with the cube, had suddenly denied all knowledge of the thing, swearing that he had never even mentioned it.

"You will please to give me my property back."

"Tomorrow," Greeson said.

The following morning he had Rath brought to his office. As the big man entered, escorted by the two attendants, he greeted the doctor cheerily. "Today I go back, eh? This is

the day of my release from nightmare." His face became grim. "I am not blaming you, Doctor, for what has been done to me. You, with your poor intellect, cannot even begin to comprehend . . . But that is all passed! I had feared that I was to spend the rest of my life in this awful place, and now I find that I am a free man."

"You aren't free yet."

Rath glanced at him uncertainly. "No. But as soon as you give me the transmitter . . ."

Greeson frowned. It was not at all what he had expected. He had been confident that Rath would deny all knowledge of such a thing, for once he had been given the thing he would have to face up to the fact that it failed to do what he had persuaded himself it could do. Such a realisation might swing him back into sanity: it was much more likely that it would push him over the brink completely.

"Doctor, I want you to please return my property." Rath's voice was shrill, and the two attendants edged closer. Then the big man sagged, all hope gone from him. "You haven't got it, have you? I didn't have it with me, did I? You've been lying to me, to see how I would react . . . isn't that it?" He sighed deeply. "I thought it was too good to be true."

Opening a drawer in the desk, Greeson fumbled for the cube. "Why I should lie to a patient is more than I can understand, my friend," he said softly. He held the cube up in plain view. "Is this your—gadget?"

Rath launched himself headlong across the width of the office, arms grabbing at the desk-top, his mouth wide open as he screamed. His heavy body slid across the desk-top, knocking Greeson backwards to the floor. The madman had the doctor by the throat and was throttling him, when the two attendants hurled themselves into the fray. Even when more attendants came running in, it was several minutes before Rath could be subdued.

Greeson watched the men strap the writhing figure into a strait-jacket, dabbing the blood from his cut cheek and swallowing painfully. "Take him to 'A' Block." 'A' Block was where the violent patients were kept.

It was evening before he went to see the patient. It was a warm, clear night, with no moon. Greeson, a scarf wrapped round his throat to hide the bruises, was nursing a savage hatred of the man who had made him suffer pain and indignity, and he gazed down with fierce satisfaction on the foam-rubber couch

where Rath was strapped. Rath was awake ; he had come out from the sedatives an hour earlier.

"Can I do anything for you, Rath?" he asked maliciously.

Rath's eyes turned to regard him. "You can have mercy on me, Doctor."

"I am a merciful man, Rath." He bared his teeth. "What do you want?"

"I want you to kill me."

"Kill you, my friend? No, I won't do that." Greeson savoured the moment. "I want you to stay alive ; I want you to live for years, my friend. I want you to spend the rest of your life in this steel hole." He looked round to make sure the attendant was not within hearing. "It's only right that you should be kept here, Rath, for you are a dangerous man. You struck me ; hurt me . . . And now I am going to repay you. You see this?" He laughed as Rath's gaze fastened on the metal cube. "Would you like me to place it on your forehead?"

The agony in Rath's eyes made the doctor tingle with delight. Slowly he pushed the cube nearer the bound man's head, holding it tantalisingly stationary when it was only inches away. Rath's body was straining against his bonds in a terrible silent struggle to break loose, the sweat pouring from his face and running down on to the foam-rubber couch.

Smiling, Greeson placed the cube against Rath's forehead and twisted the metal. Seconds later he lifted the cube away. "You see?" he croaked. "Nothing has happened. Your transmitter doesn't work, Rath." He laughed. "Only a madman would ever have dreamed that it would. And that's why you imagined it would, Rath. Because you're mad ; a would-be homicidal maniac."

The clock in the Administration Building tower had long since tolled midnight, but Greeson was still busy in his office, writing down in great detail all that had happened concerning Rath within the past twenty-four hours. A noise from the corridor outside made him look up with a frown, and then the door swung open and Rath was standing in the opening, an iron bar in his hand.

A chill hand of fear gripped Greeson's heart. The floor seemed to tilt and swing, and then he was dreadfully aware of the menace that threatened.

"I want my transmitter." The big man was still wearing the shirt and trousers he had worn in the office for the last session, but the trousers were badly torn, and all down the right

leg there was a bloodstain. With eyes inflamed and a putty-coloured froth on his lips, Rath was a terrifying spectacle.

The doctor forced himself to speak. His only hope was to humour the maniac, for it would be impossible to summon help in time to prevent Rath attacking. "Your—your transmitter, Rath?" he croaked, his throat dry. "But surely you don't want that, do you? Didn't you remember I'd shown you it wouldn't work?" He eased his foot a few inches nearer the alarm buzzer under the desk.

Rath took a step forward, raising the bar slightly. "That wasn't a fair test," he said thickly. "It can't work for more than one person. You've got to make the circuit complete yourself. It's no good if anyone else tries to do it."

"Well, how was I to know that? You hadn't told me." Greeson tried to smile, but gave up the attempt. "How was I to know it wouldn't work that way." His shoe was now less than ten inches from the buzzer. "But you know, Rath, I still don't think the—the transmitter will work." Slowly, very slowly, so as not to alarm the desperate man, Greeson fumbled among the papers on his desk until his fingers closed over the shape of the cube. Fortunately, Rath had not been able to see it, for it had been hidden under the foolscap sheets that were covered with Greeson's handwriting.

The sound of Rath's stertorous breathing filled the office with a noise of tiny thunder; mingling with the roaring din caused by the blood seething through the doctor's skull, it deafened him to all other sounds. His clothes were soaked with icy sweat, his fingers slippery with moisture as they clasped at the cube.

Desperately he brought the cube out from under the papers and clapped it against his forehead. "See, Rath, see, my friend," he babbled. "It doesn't work!" His voice rose to a shriek as the big man hurtled at him, the bar of iron poised. Greeson jerked back, twisting his head away from his attacker, the cube still clutched to his forehead.

The floor seemed to tilt, and then it was as though he was falling, falling into a deep pit, landing heavily. He blinked. His sight was misty, and his brain felt as though it were stuffed with cotton-wool. He was aware of movements round him, of various sounds and of voices, muffled voices. He opened his eyes again and now saw clearly the white-clad figure leaning over him. "Wh—where am I?" he whispered.

The white-clad man laughed. "Still on Toombla, old man, still on Toombla."

John Boland

QUICK

Readers with memories of many years of science fiction will doubtless remember the spell cast by Malcolm Jameson and his *Commander Bullard* series back in the late 1930's. We feel that American author Bob Silverberg is one of the few presentday writers who can catch and interpret that spell in a good science fiction drama.

FREEZE

By Robert Silverberg

Illustrated by EDDIE

According to the ship's mass detectors, Valdon's Star lay dead ahead. In the fore cabin of the *Calypso*, Communications Tech Diem Mariksboorg tried to shut his ears to the angry, insistent shrill distress pulse coming from the Empire hyperliner that lay wrecked on Valdon's Star's lone planet.

Spectrometer analysis confirmed it. "We're here," he said. He turned to the *Calypso's* captain, Vroi Werner, who was running possible orbits through the computer. "You ready for the pickup, Vroi?"

Werner nodded abstractedly. "I figure we'll make a jet landing, using the usual type orbit, and grab the survivors as quick as we can."

"And no salvage."

"Just people," Werner said ; he picked up the sheaf of notes Mariksboorg had transcribed from the distress message, read them again, and laid them down. "There are twelve survivors. With a little shoe-horning, Diem, we can just about get twelve more aboard the *Calypso*."

Mariksboorg peered at the growing bright image in the view-screen, frowning moodily. "We'd be back snug on Gorbrough now if we hadn't taken this cockeyed route. Whoever heard of a jetship making an emergency pickup ?"

"We happened to be right where we were needed at just the right time," Werner said stiffly. "There's a time element involved in this, Diem. It turns out to be more efficient to use an inefficient old jet-powered tub to make the pickup than the shiniest new warship . . . for the efficient reason that we're already here."

"Aye, aye, sir," the chastened tech replied.

Valdon's star was actually a triple system, consisting of a small, Sol-type main-sequence sun ; a grey ghost companion sun, bulky and lifeless—a monstrous rarefied cinder and nothing more—and one unnamed planet, orbiting around the grey companion.

The Empire hyperliner *Andromeda* had been bound for the Deneb system out of Terra when something—a fused ultrone in the main generator, perhaps, or a cadmium damper inserted askew—went out of kilter, upsetting the delicate balance of the hyperdrive. Result : the liner was restored to normal space, and deposited abruptly on the frozen surface of Valdon's Star's solitary world.

A wrecked hyperliner is a thoroughly helpless object ; the Bohling Hyperdrive is too complex for any journeyman engineer to repair, or even understand ; with a conked-out drive, a hyperliner becomes—permanently—just so much junk.

To compensate for this, Galactic law requires that two automatic-break circuits be built into the cybernetic governors of all hyperdrive ships, in case of drive failure. The first of these is an instantaneous molecular disruptor that can, and will, volatilize the ship's every milligram of mass immediately upon emergence from hyperspace within critical range of what is defined as a Stress Area. That is to say, the interior of a planet—or, more alarmingly, the interior of a sun, where a sudden materialization could precipitate a nova.



A Bohling-drive ship gone sour *can* materialize anywhere at all—but if it returned to space at some point already occupied by matter, the result would be spectacular. Just thirty-seven feet saved the *Andromeda* from a Circuit One volatilization : it was thirty-seven feet above the surface of Valdón's World at the moment of materialization.

From this height, the liner dropped to the surface, cracking open like a split log. Twelve of the fifty-eight persons within survived, getting into their thermal suits before the ship's atmosphere could rush from their bulkheaded compartment.

Circuit two then went automatically into effect : as distress-pulse, audible over a range of twenty light-years, fanned on a wide-band, thirty-megacycle carrier to any and all craft in the vicinity. In this case, the wide range proved excessive.

The *Calypso*, an eight-man cargo ship, was traversing a minus-C orbit between two of the local stars ; it happened to be only a half-hour's journey from Valdon's World when the distress-pulse exploded all over that segment of sapce. No other ship was within a light-year of the scene of the accident.

Central Control instantly checked with the *Calypso* ; eleven seconds later, Captain Werner and his ship were willynilly bound for Valdon's World on a top-emergency rescue mission.

Which was how the *Calypso*, its tail-jets blazing with atomic fury, came to roar down on the blue-white airless ball of ice and frozen methane that was Valdon's World. The operation had to be carried out with utmost rapidity ; Captain Werner had never landed on a methane planet before, but this was no time for maiden shyness.

Thermocouple readings showed a mean temperature of minus three-thirty F. ; an abnormal albedo of 0.8 was recorded, and explained when spectroanalysis revealed a surface consisting of a frozen methane-ammonia atmosphere, covered with an ice-carbon dioxide overlay. A sonic probe from turnover point indicated a heavy rock shelf beneath the frozen atmosphere.

Aboard the *Calypso*, the crew of eight prepared efficiently for the landing and readied the cabins for the twelve newcomers who would be jammed aboard. Captain Werner studied the fuel banks, running hasty computations that assured him that the ship would still be stocked with sufficient fuel to handle the altered mass.

At eight minutes before planetfall, everything was checked out. Werner slumped back in his deceleration cradle, smiled grimly, flicked a glance at Mariksboorg.

"Here we come," Mariksboorg murmured, as the *Calypso* swung downward, and the mirror-bright surface of Valdon's World rose to meet the jetcraft.

"Here they come," muttered Hideki Yatagawa, Commander of the former Terran hyperliner *Andromeda*. He folded his arms around his stomach and stamped his feet in mock reaction to the planet's numbing cold. Actually, it was somewhat more than mockery : the thermal suit kept him at a cozy 68°F. despite the minus three-thirty around him. But the thermal suits would register *Overload* in eight or nine hours ; within seconds after that happened, Commander Yatagawa would be dead, his blood frozen to thin red pencils in his veins.

"Is *that* the rescue ship?" asked Dorvain Helmot of Kollimun, former First Officer of the late *Andromeda* and sole non-Terran among the survivors. "By Klesh, it's a jet!"

"They probably were closer to us than any warp-drive vessels when the distress signal went out," suggested Colin Talbridge, ambassador-designate from the Court of St. James's to the Free World of Deneb VII. "There's some sort of time element in this, isn't there?"

"There is," Yatagawa said. "These suits can't fight this sort of temperature indefinitely."

"It's a good thing the rescuers are here, then," said Talbridge.

The Commander turned away. "Yes," he said in a muffled voice. "But they're not here yet."

"Look at those jets!" Dorvain Helmot exclaimed in frank admiration. Jetships were all but obsolete in the Kollimun system; Helmot was accustomed to dealing with fuelless warpships, and the torrent of flame pouring from the tail of the *Calypso* aroused his connoisseur's love of the antique and the outmoded.

"Indeed," Commander Yatagawa remarked sourly. "Look at those jets. *Look* at them!"

Those jets at the moment were bathing the planet below with fire. Hot tongues of flame licked down, beating against the thick carpet of ice and frozen CO² that, along with a heavy swath of methane and ammonia, made up the surface of Valdon's World.

Yatagawa watched, arms folded, as the *Calypso* came down. "I wonder if they've bothered with thermocouple readings," he said softly as the spaceship dropped.

"What do you mean?" Talbridge asked.

The rest of the *Andromeda* survivors were rushing from the wrecked ship now, running out into the icy plateau where Yatagawa, Helmot, and Talbridge had been standing. Quietly, Yatagawa said to Talbridge: "You don't think they're going to be able to rescue us, do you?" He sounded quietly resigned.

Hotly, Talbridge said: "Why not? Are you keeping something back from us, Commander? If you are—"

"I'm merely postponing the inevitable. The people on that ship think they're coming down to rescue us—but I'm afraid it may have to be the other way round."

"What do you mean?"

"Watch," Yatagawa said.

The *Calypso's* jets continued to blast down. The ship would land on an upswept, ice-covered shelf which was about a mile from the wrecked hyperliner. Already, the approaching jetwash had begun to melt the ice beneath ; a dark spreading stain over the gleaming surface indicated the area being weakened.

Talbridge gasped. " You mean they're not going to be able to land ? "

" It's much worse than that," Yatagawa said with a calmness that belied his words. " They'll make a perfect landing. But I wonder how deep the ice is over there."

" Won't the jets melt it ? "

" The jets will vaporize the ice in the direct blast, and liquify whatever's tangential to the area. Only—"

There was no need for Yatagawa to continue the explanation. Talbridge could plainly see what was happening.

The *Calypso* hung for a moment on the bright pillar of its jetwash, then lowered itself to ground. Talbridge saw the tail-fins hang for a fraction of an instant, an inch above the swirling cloud of vapour.

Then the *Calypso*, cutting its jets, entered the pit the jets had blasted. The slim sleek vessel came to rest finally on the rock shelf beneath the ice-sheath.

" Look ! " Talbridge yelled.

There was no need for Yatagawa to look. He had seen it coming since the jet had made its appearance—and had known there was no way to prevent it from happening.

In a temperature of minus three-thirty, melted ice refreezes instantly upon melting, give or take a few microseconds. A few microseconds had been all that was necessary. No sooner had the *Calypso* settled in its pit than an unexpected vice of frozen liquid clamped back around it. The water created by the jets had refrozen the instant the jets had been cut off.

Perhaps the crew of the *Calypso* had expected the water to stay liquid indefinitely ; perhaps they had fully expected to set down in a small lake. Perhaps they had thought their jets would *not* melt the ice sheath. Perhaps—and this seemed most likely to Yatagawa, Talbridge, and the other horrified onlookers from the *Andromeda*—they had not thought at all.

It hardly mattered now. Conjectures were unimportant ; facts remained. And the fact was that the hundred-foot length of the *Calypso* was now almost entirely under ice, frozen in an unbreakable grip, having slid into the temporary lake as easily as a blade into clay . . . a clay that hardened within microseconds.

Only the snout of the rescue ship was visible above the flat icy wastes, sticking out like a periscope from an ocean's waves.

Talbridge gasped. Yatagawa merely frowned unhappily. None of the twelve could evaluate the immediate situation too clearly, but all could see one indisputable verity : the rescue ship was trapped.

Yatagawa, moving quickly on his short, wiry legs, got there first, closely followed by the other eleven. He paused, testing the ice, before approaching the ship itself.

The ice held ; it was solid. *Very* solid. The shortlived lake had refrozen into a clear sheet of ice that nestled snug against the ship. The ice displaced by the bulk of the *Calypso* fanned out around it in all directions.

Yatagawa climbed out over the ice and looked down. Visible just a few feet below the transparent surface was a single port ; and staring upward out of the window was the face of a sad-looking jetman.

Yatagawa waved to him ; the man waved back, then tapped the port with an expression of gloomy desperation on his face. A second man appeared behind him, and the two peered upward through the ice like animals in a cage—which, in a sense, they were.

Yatagawa gestured at the throat of his thermal suit, indicating the suit-radio, and after a few moments of that, one of the men inside caught the idea and donned a pickup.

"Welcome to our shores," the Commander said dryly, when contact was established. "It was a beautiful landing."

"Thanks," said the mournful voice from beneath the ice. "Of all the stupid, harebrained, needleheaded—"

"No time for recriminations now," Yatagawa said. "We'll have to get you out in a hurry. I'm Yatagawa, the *Andromeda's* Commander."

"Werner. Captain of the *Calypso*—and the biggest fool unhung."

"Please, Captain. Who could expect you to prognosticate such an unlikely event ?"

"You're just being kind, Commander—but thanks, anyway. I never dealt with one of these snowball planets before. I guess I should have known the ice wouldn't stay melted more than an instant, but I never figured I'd get frozen in like this."

A little more forcefully, Yatagawa said, "There is little time for discussion, Captain Werner."

"Just *how* little, Commander ?"

Yatagawa smiled sadly. "I estimate our thermal suits will short out within eight hours, with a possible margin of thirty minutes."

"Then we'll have to move fast," Werner said. His face, clearly visible despite the feet of clear ice that covered it, was red with embarrassment. "But—how?"

Helmut said, "I've sent Sacher and Foymill back to the *Andromeda* for picks and shovels. We've got a lot of digging to do."

Yatagawa's sad look remained. He said indulgently, "Dorvain, just how long do you think it will take twelve men to dig a hundred-foot hole in solid ice?"

The Kollimuni was silent a moment. Then, in a hollow-sounding voice, he said, "It'll take . . . days, maybe."

"Yes," Yatagawa said.

"You sure of that?" Werner asked.

"We can always try it," said Talbridge.

"Very well," the Commander said. Sacher and Foymill arrived bearing picks; Yatagawa, stepping back, indicated that they should go to work.

The picks rose and fell. Over the audio network linking the suits came the sound of rhythmical grunting. Yatagawa allowed the demonstration to continue for exactly two minutes.

In that time, the two crewmen had succeeded in digging a cavity four inches deep and six inches broad. A little heap of powdered ice lay to one side.

Stooping, Yatagawa inserted a gloved hand to measure the depth. "At this rate," he said, "it would take centuries."

"Then what are we going to do?" Helmut asked.

"A very good question." The Commander kicked the little heap of ice away, and shrugged. Even under the bulk of the thermal suit, the shrug was eloquent.

Aboard the *Calypso*, Captain Werner and Communications Tech Mariksboorg regarded each other bleakly. A thin beam of light trickled through the blanket of ice, through the one fore-ship port, and into the cabin. It was light from the yellow Sol-type companion star; unfortunately, it afforded little warmth.

"Minus three-thirty outside," Werner said. "And we knew it."

"Easy, Captain." Mariksboorg was sincerely worried that Werner's contriteness would prove fatal. He wondered how Yatagawa, up there, might react had he done what Werner had.

Certainly two thousand years ago Yatatagawa would immediately have disembowelled himself. Hara-kiri was millenia obsolete, but Werner seemed to be considering it quite seriously.

"Whoever heard of a spaceship getting *icebound*?" Werner demanded.

"It's over, Vroi. Forget about it!"

"Easy enough, forgetting; but we're still stuck here. And how can I forget, when I don't even dare leave my cabin and face my own crewmen?"

"The boys aren't angry," Mariksboorg insisted. "They're all very sorry it happened.

"*Sorry!*" Werner wheeled and jabbed an index finger sharply in the Communications Tech's direction. "What good is being sorry? This is serious, Diem; we're trapped."

"We'll get out," Mariksboorg said soothingly.

"Yeah? Listen: if we're not out of here in eight hours, those twelve guys outside are going to freeze to death. Their ship's got no air left, and they're damned sure isn't any on this accursed planet. Okay. So they die; too bad for them. *But who's going to get us out?*"

"Oh," Mariksboorg said in a small voice.

"By my figuring we've got four days' food. When Central Control asked us to make this pickup, they said they couldn't get another ship here in less than a week. That's not even counting the time it would take for another ship to find us once it got here—and we can't help it much in that department."

Mariksboorg moistened his lips. "I guess we'd better get out," he said. "Fast."

"Uh-huh. Faster, even."

From outside came the crackling voice of Commander Yatatagawa. "We've attempted to dig you out; it can't be done in time."

"Of course not," Werner said. "Nothing's going to work in time," he added under his breath.

"What's that?"

"Nothing," Werner said.

There came a pause. Then: "This is Dorvian Helmut, the *Andromeda's* First Officer."

"Hello, Helmut."

"Our ship's still in pretty good order, unless you count the hole in the skin that let all the air out. Do you think we can make use of any of our equipment to get you free?"

"Got a hydraulic drill?"

"We have no digging equipment whatever," Commander Yatagawa said crisply.

Werner studied his fingertips for an instant. Above, anxious faces peered down at him—separated by a thin but durable plastic window, and a thick and equally durable window of ice.

"How about starting up your jets?" Talbridge suggested. "You could run them on low power—just enough to melt the ice around you and free the ship."

Werner smiled; it was pleasant to find a bigger fool than himself on the planet. "If we start the jets, it'll be like firing a pistol that's plugged at the business end. You know what happens?"

"The barrel would explode, wouldn't it?"

"Yes," Werner agreed. "Only in this case, the barrel happens to be us. Sorry, but we'd blow up the works if we fired the jets. Besides," he added, glad of the chance to show that he wasn't an utter fool, "Even if we did melt the ice, we'd have to have some way of pumping away the fluid around us before we could blast off. Do you have any sort of pump?"

"A small one. It might do the job, but I doubt it."

"Couldn't you," Talbridge offered undismayed, "heat the inside of the ship? You could get into thermal suits and turn the heating-system way up. That ought to heat the hull and—"

"No," Werner said, "the hull wouldn't heat."

"Hold it," Commander Yatagawa interrupted suddenly. "How come? Suppose you *could* get the jets started—wouldn't they heat up the tail, at least?"

"No. How much do you know about jets?"

"Not too much," Yatagawa admitted; "I'm pretty much a warp-ship man."

"The hull's a polymerized bonded-molecule plastic," Werner said. "It affords pretty near perfect inside-outside heat shielding. It keeps us from cooking when we pass through an atmosphere—and from freezing on places like this one."

"You mean even the jets are shielded, and the tail-assembly won't heat up when you're blasting, eh?"

"That's right."

Up above, Yatagawa nodded inside his thermal suit. After a moment's silence the Commander said, "We'll be back in a little while, Werner; I think you've given me an idea."

"I hope so," Werner said fervently.

The shattered corpse of the hyperliner *Andromeda* lay on its side in a shallow depression on the ice. A furrowed gash ran the length of the ship, attesting to the force with which it had dropped to the ground.

Twelve figures gathered about the ship, bulky in their cumbersome thermal suits, moving with jerky rapidity. All around, blue-white snow wastes spread to the horizon. Here and there, an outcropping of rock gave evidence of the stone shelf that underlay the frozen atmosphere—and, a little further away, an even stranger outcropping thrust from the ice : the dull-green snout of the *Calypso*.

"Polymerized plastic hull," Yatagawa repeated half to himself. "That means—if no heat gets conducted from inside to outside—"

"It ought to work the other way too," Helmot completed.

"Exactly."

Yatagawa mounted one fin of the *Andromeda* and clambered inside, followed by his First Officer. Together, they headed down the narrow companionway.

Bodies lay scattered randomly in the hulk. The bacterialess frigidity of Valdon's World assured that they would remain preserved indefinitely ; there was always time to bury them later. More urgent affairs beckoned now.

Yatagawa tapped an unbroken helium tank. "Could we use this ? Helium ought to be liquid in this temperature."

"You mean as a superconductor ? Damned if I know how."

Yatagawa shrugged. "It was just an idea, anyway."

They kept going, past the passenger compartments, down the dropshaft to the drive room. To Yatagawa's surprise, a tear quivered suddenly in his eye. He scowled irritably ; a thermal suit did not come equipped with tear-wipers—furthermore, this sort of emotional display seemed excessive to him. Yet the sight of the maze of controls that once had governed his ship moved him.

"Here we are," he said somewhat harshly. He looked around. "Pity there's no time to explore the place and figure out what went wrong."

"There'll be time for that later," Helmot said. "They'll work it out during the inquiry."

"Of course." Yatagawa shut his eyes for a second, thinking of the gruelling inquiry that was sure to follow, if he ever got off Valdon's World. Then he picked up a heavy spool of copper wire and handed it to the Kollimuni.

Helmut grabbed the spool and staggered with it back to the bulkhead door. Yatagawa, continuing to prowl through the shattered drive-room, hauled forth another spool, and a third.

"There's three thousand feet," he said. "That enough?"

"Better get another one," Helmut advised. "We won't want to set up our generator too close to the *Calypso*."

"Right."

He reached into a storage hold and yanked forth another spool. "That should do it," he said. He glanced at the chronometer set in the wrist of his thermal suit. "Seven hours left. We should just about make it. I hope Werner was right about his hull; if he wasn't he'll be cooked for sure."

"Can you see what they're doing?" Werner asked.

Mariksboorg craned his neck to try to peer through the port. "They're wrapping wire around the nose of the ship. I guess they're covering the entire exposed area with it."

Werner paced the cabin gloomily. The light of the yellow primary was fading, and time was moving along quickly. The men of the *Andromeda* had but a few hours in which to spring the trap.

"Here we are," he said bitterly. "We're the rescuers, and they're the rescued—and they're breaking *their* necks to save *us*!"

From outside came Yatagawa's voice. "Werner?"

"What are you guys up to?" Werner demanded.

"We've wrapped a coil of wire around the snout of your ship. It's hooked to an ultronic generator we've salvaged from the *Andromeda*. Can you see it from where you are?"

"No. I can't see anything."

"We're a few thousand feet from the ship. The generator's a medium-sized one, because the big one's gone dead. But this one will do; it'll give us ten million volts in a pinch. Not that we'll need that much, of course."

"Hey, hold on, Yatagawa! *What are you going to do?*"

"We're going to roast your hull. I figure that if we generate enough heat in the wire, your hull will heat up and the ice'll melt around you."

Werner gulped. "What about us? We're inside."

"The heat won't get above a thousand centigrade. Your hull can handle that—and you won't feel a thing. I hope. You have thermal suits?"

"Yes," Werner said hoarsely.

"I'd suggest you put them on; just in case, that is."

"Sure. Just in case."

"I'll wait for your signal before we send the current through. Meantime—"

Struck by a sudden idea Werner asked, "What are you going to do with the melted ice? It's only going to freeze again as soon as the current's off. My hull's not a heat-retainer."

"We've thought of that. We've dug up our small pump and some tubing. As the stuff liquifies, we're going to siphon it off down the hill."

"And what happens then?"

"We'll get into the ship and leave," Yatagawa said.

"How? You won't be able to get a bridge across the ice—and our airlock's pretty far down the hull."

There was silence at the other end for a moment. "There must be some way—"

Werner frowned thoughtfully. "We're on bed-rock right now, aren't we?"

"Yes."

"It's simple then, but pretty screwball. Clear away about a thirty-foot diameter of ice and we should settle into an upright position on the rock below. We'll blast off the usual way; then we'll come back, and swing into a narrow orbit about thirty feet off the ground. We can drop ropes for you from our airlock. It's a crazy way to make a pickup from a spaceship, but it's worth a try. Otherwise, I'm afraid, there'll be some trouble."

Commander Yatagawa stood by the hooded bulk of the ultronic generator, leaning affectionately against it, and stared at the gleaming red-brown wires stretching over the ice to the buried *Calypso*.

The yellow sun was setting; its dying rays illuminated the useless bulk of the grey ghost which was its neighbour, hanging low on the horizon and blotting out a great chunk of sky.

"We're ready," came the tense, tinny voice of Werner.

"So are we," Yatagawa said.

He threw the switch. The generator throbbed, and began shooting current through the copper wire. Electrons flowed; power was dissipated; electrical energy was transformed into heat.

The heat spread through the highly conductive plastic jacket of the *Calypso*. The *Calypso's* hull began to grow warm.

"How's the weather in there?" Yatagawa asked.

"We're doing fine," Werner said.

"Glad to hear it. Your hull's temperature is probably well above zero now, and getting hotter."

The hot wires had already melted thin lines through the ice to the ship; vapour rose.

"It's starting to melt," Helmut called.

"Get the siphon working."

The pump they had found in the *Andromeda's* hold and dragged with such effort over the ice began to come to life. It groaned under the burden but started to function, hauling the newly-melted water away from the warming surface of the spaceship and through the siphon, spurting it down the side of the hill, where it froze instantly into a spire of fantastic shape.

"It's working," Yatagawa said, half to himself. "It's really working."

Later—after the entire volume of water had been siphoned away, after the *Calypso* had grudgingly righted itself and settled on its landing fins on the rock shelf, standing strangely naked in a pit thirty feet across and a hundred deep, the rescue operation began.

Still later—after the *Calypso* had blasted off amid much roar of jets, and brief melting of additional ice; after the ship had levelled off and gone into its absurd orbit just above the frozen surface of Valdon's World; after twelve survivors of the *Andromeda* had shinnied up the ropes into the *Calypso's* airlock, the two Captains came face-to-face.

Commander Yatagawa, who had lost his ship—and Captain Werner, who had lost his face.

Together, they peered out the view-port at the rapidly-retreating brightness of the Valdon's World. "I think I see it," Werner said.

"That dot over there? Maybe that is where we were, after all. That must be the pit."

"And that's the wreck to the *Andromeda*," Werner said. Suddenly, he began to laugh.

"The joke?" Yatagawa inquired.

"We've got to fill out reports on all this," said Werner. "And I've got to notify Central Control that the rescue's been effected."

"And what's so funny about that?"

Werner, red-faced, said: "Officially, I rescued you. Dammit, I'm going to get a medal for this!"

Robert Silverberg

The asteroid belt and the possibility of a planet once having existed between the orbits of Mars and Jupiter have long been interesting subjects for discussion. Right here on Earth there is a very powerful clue to the answer.

QUIZZICAL GLASS

By Kenneth Johns

Scattered in well-defined areas over various parts of the Earth's surface are many curious little pieces of glass known as tektites. Often of fantastic shape, they vary in size from nodules weighing a few ounces to chunks up to ten pounds. Although there are definite sub-families, specimens being similar throughout one particular area, their overall composition lies between narrow limits.

And these glass tektites are unlike any other glass known upon Earth. They are completely dissimilar to any igneous rock formation or even any glass manufactured at present.

Inspection of the surfaces of specimens shows that the surface has been heated and then stressed, leaving distinct flow-lines. Tektites come in many different shapes—rods, balls, discs, dumb-bells—but this melting and flowing of the glass surface is particularly noticeable in a characteristic winged shape, where the molten glass has flowed back resulting in a streamlined flying-wing.

Study of the tektite glasses shows that they were formed at a temperature between 1500 and 2500 degrees Centigrade. A short-term heating could not have produced the typical tektite glass, considerable periods of time would be required for the various components to fuse, and the heat, whilst it must have been above the melting point of the glass, could not have been very high, otherwise some of the oxides found in the glass would have been vaporised. When it is realised that no natural temperature of over 1500 degrees Centigrade has existed upon Earth recently, as geological time goes, some extra-terrestrial explanation must be sought for the presence of so many of these odd pieces of glass strewn about our planet.

Palaeolithic or Old Stone Age Man often used handy tektites for spear points ; but not one trace of tektites is found in ancient geological strata—over 50 million years old—which indicates that there was a point in time when tektites began to arrive on Earth. And no tektites have been seen to fall to Earth in recorded history.

But the unmistakable fusing and ripping away of the glass film over their surface tells us that these tektites arrived on Earth from space. They must be a special form of meteorite.

Thorough examination of them has been carried out by Virgel E. Barnes and Ralph Stair among others, using thin sections illuminated by visual light, and analysing the transmitted light with a spectrometer. Through measurements of their specific gravity and by chemical analysis of elements composing the glass, it has been shown that each of the different specimen groups probably came from a single parent body for each group. Specific names distinguish tektites from different localities : australites, the youngest, come from Australia ; moldavites come from Bohemia, billitonites come from Borneo, and bediasites come from Texas. They are also known as Darwin or Libyan Desert glass.

Their main constituent is silica, which explains why they have a very small coefficient of expansion, together with small proportions of the oxides of iron, calcium, magnesium, potassium, sodium and aluminium—completely unlike ordinary meteorites which are mainly nickel, iron and stone.

The answer to the problem of tektites can only be found by turning our enquiries towards space, to the orbit lying between Jupiter and Mars where the millions of asteroids jumble and jostle around the Sun. From this confused mass of material

and the many other small bodies adrift in our solar system, of which the meteorites that strike the Earth are part, astronomers deduce that at some time in the past a planet or planets exploded or disintegrated in some unknown catastrophe.

The peculiar importance of tektites in helping to clarify this point, as well as throwing strong light upon their own origin, is the fact that they represent a material unknown naturally upon Earth. Our sedimentary rocks could be the remnants, long since ground down, of glass similar to the tektite glass. This means that once, long ago, tektite glass *could* have existed upon Earth; but that geological alterations have reduced it to sedimentary rocks.

But no such geological work could take place upon the pieces of tektite glass from the smashed planets until they landed on Earth.

Studies of ordinary meteorites and new theories of the formation of the planets give us the modern picture of the gradual build-up of a new planet. When at last the primeval material has resolved itself into a stable ball, the heavy elements, including the nickel-iron, will have sunk to the centre to form the core; around this the other materials form in layers of gradually decreasing density, until, on the surface, lie the lightest glasses.

On Earth these layers of glass must have gradually worn away, forming part of the sedimentary rocks we know today.

The postulated planets between Mars and Jupiter must have been frigid, waterless deserts—any water would have been frozen solid. In the absence of water there would have been no sedimentation. Before any Earth-like geological landscaping could take place, the planets, probably in unstable orbits from the beginning, were pulled further and further off true, drawn by the immense attraction of Jupiter, until at last they collided and disrupted in a supernal cosmic catastrophe. The remnants of the planets, at last reaching Earth as meteorites, show all types of material that might have originated under such conditions; but no meteorite contains any evidence whatsoever of sedimentary rocks, or of plant or animal life.

The tektite glass shows evidence that it was formed under conditions of heat and pressure that incompletely fused it; there are striations and lines of pressure and other characteristic indications. Analysis of the helium produced by cosmic rays in meteorites shows that they have been subjected to the radiation in space for only a few hundred million years. Tektites also

show clear traces of fractures and partial fusion which must have occurred when the larger pieces collided with Earth's atmosphere, the larger pieces splitting into smaller and bombarding oval-shaped areas of the surface. Unfortunately, weathering and chemical reactions in the terrestrial soil eroded the surface of many tektites, sometimes deeply grooving them and removing the highly informative, fused, surface layer.

But the general picture that emerges is that here we have fresh and strong evidence for the presence of other planets in the Solar System, planets which collided, or, for some reason, exploded. Too, there are clear indications that these planets were in a more primitive state than the Earth of today—which is what we would expect from the conclusions reached from other attempts to answer the problems of the asteroids and the vanished planets.

Tektites hold the key to many mysteries at which for the moment we can but guess. After a great deal more research work they will tell us more about the general structure of their parent planets, and, possibly, even something of the causes of that ancient stupendous break-up.

Kenneth Johns

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FOURTH SPECIES

In the March issue E. R. James had a short but pithy story ("Beautiful Weed") which centred around the ecology of Mars suddenly transposed to Earth. Here, in the sequel, he shows what happened to the plants and reptiles when their new environment had been given full rein.

By E. R. James

On the edge of the circle of light cast by Dr. Gerald Sanger's electric torch something gleamed and moved. As he swung the light back, a long shape, black or dark grey, seemed to slither over the wet sand and glide into the spent waves rippling into the brightness.

He shivered in spite of the warmth of the spring evening. Did his imagination play tricks? This was Earth: the Mediterranean coastline of France. He ran forward, suddenly bending. Unless memories of field studies on Earth—before he had gone to Mars—were playing him false, he was looking at the track of a large lizard. Water was seeping into marks left by four splay-footed feet—and those swerving cuts in the sand between the marks suggested a tail flattened vertically—suitable for swimming, perhaps . . .

He straightened and shone the light over waves racing towards him. Something bobbed inshore a few yards away and he hurried towards it.

Just weed. Not Earthly weed, but the incredibly hardy Martian variety. He had gone to Mars to study it. There it covered the lowlands, growing slowly and imperfectly in the arid conditions—the single surviving species of plant life from a long dead past when Mars had been fertile. Accidentally introduced on to Earth, it had grown and seeded with such fantastic speed that Earth as men knew it had almost been destroyed.

He picked it up, almost absently. A locust-like shape fell off it. Other similar shapes clung to it. Insects of Mars, these had been introduced deliberately, on his suggestion, as the only means of controlling the weed menace. For the weed was poisonous to all Earthly creatures, and grew and seeded and spread with such incredible speed that something had had to be done. Within a year it would have covered every stretch of water—stream, and river, pool, lake and most especially the salt water of sea and ocean on which it particularly thrived. The Sun would have been unable to draw up water, clouds would have vanished from the sky and fertile lands would have turned into dustbowls.

He shuddered. Deliberately to introduce a new creature on to a planet was a dreadful thing to do. Only the great emergency had made him suggest it. Of course it was true that the insects seemed to eat nothing but the weed, but they were themselves poisonous and, if they had been allowed to multiply unchecked, perhaps some out of the countless prolific millions of them might adapt to Earthly food.

Even now, after a year when all had seemed to go as he had hoped, one could not be sure that the entire ecology of Earth might not be affected.

He had not, since his return to Earth a few short weeks ago, had an opportunity to study as he would have liked. Besides being hailed as the saviour of Earth, there had been the Basle Conference. He had listened while biologists from all over the world had assumed—somewhat rashly, he thought—that the differing life forms of Mars and Earth had settled down to peaceful co-existence. He had felt that the experts were allowing themselves to be blinded by details.

Few of them had ever been off Earth at all. Instead of searching for possible dangers, they had been content to discuss the apparent decrease in numbers of the third and only other species of Martian life—the crustacea—within the Mediterranean area.

Hitherto the greater concentration of salts within the Mediterranean had indeed seemed to favour all three forms of Martian life. And it was strange that the few crustacea still being taken in the nets of fishermen were invariably caught in coastal areas away from towns, but there was the larger picture, too.

Nevertheless it was on the conference's direct instructions that he had come here to form one of a planned series of experimental stations in remote areas.

Now that the emergency had been declared over, funds were restricted, and field workers had mostly gone back to their old more remunerative occupations. He and George Batchford, an old friend, had rode in the dormobile pulling the trailer laboratory and Aldous Carshott and his daughter Mary, both amateur workers, had come in their big car and trailer caravan.

It had been so long since he, Dr. Gerald Sanger, fresh from the life of a researcher hermit on Mars, had been in the company of a female of his own species that he must have been an easy prey for her.

Thus reminded that she had urged him to come on to the beach to meet her, he swung his light all around the dark shore.

"Mary!" he called.

Almost at once, however, he saw the trail of strange marks going off towards the dunes below the cliff road . . . towards the lights of the trailer camp.

Then he saw something huddled. Too small for a human shape . . . but large enough to be familiar. His feet dug into soft dry sand as he ran back roughly in the direction in which he had come. He slid to his knees. It was one of the Martian crustacea. A thing three feet long and like an Earthly lobster in some respects, he had advised that it too should be introduced. Just as the poisonous weed had to be controlled by the hungry little mouths of the insects, so the insects—semi-poisonous and inedible to Earthly things—had to be preyed upon so as not to multiply without check.

He touched the creature, expecting it to stir and drag itself off, its natural ferocity hampered both by the lack of its natural watery habitat and the greater gravitational pull of Earth. But it did not move at all. It felt unnaturally light, in fact. He pushed it. It flopped over on its side, claws and legs flopping out loosely and belly gaping wide open.

Just a shell of what had once been an alien living thing. Well, of the three Martian species it could be eaten by Earth creatures.

Perhaps a dog had got hold of it. But a dog would have ripped it about, tearing the soft underside, instead of making such a neat slit from segmented tail to armoured head.

Something had cleaned it out very efficiently.

His light pushed back the darkness as he rose to his feet.

Another huddled shape. Bigger this time. A human shape. In shirt and slacks, but girlish—

"Mary!" he yelled.

Lack of response dragged him slithering through the soft sand to where she was lying crumpled. He almost fell over her in his nameless terror.

He shook her. "Mary!" How limp she was!

He touched her face—to him beautiful, but the features too pronounced to be classic—and it was icy cold.

"No!" he breathed.

His future seemed to close in around him. His world crumpled up and he felt terribly, desperately alone—more alone than he had ever done when he had been a hundred miles from the nearest human being, on Mars.

He gathered her into his arms and went staggering—the lesser gravity of Mars had sapped some of his strength—towards the encampment. Stumbling over unseen rises, he found the beach path and saw the dark shapes of the other men coming to meet him.

Carshott's sharp voice: "What were you shouting about—My God! Mary? Has something happened to her?"

"Got to get a doctor!" gasped Gerry at them. "Help me, George."

George's stronger arms took over the tragic burden. Carshott seemed to be dancing around them, half out of his mind, shouting, but Gerry was not listening.

"Get your caravan door open!" he shouted down the frantic man.

Carshott's voice cut off. He hurried ahead, opening the door of the luxurious caravan. Gerry glimpsed a table laid out for supper, with Carshott thrusting at it. As George's bulk blocked the view, there was a crash of cutlery and crocks.

George, solid and unperturbed, put Mary's limp form on one of the bench seats. Carshott pushed him aside and bent to examine his daughter.

"Dead," he muttered. "Dead . . ."

He turned, his face contorting with fury. "Damn you, Sanger! What have you done to her?"

"Me?" Gerry started. "I haven't—"

"Steady, both of you," interrupted George's firm, sobering voice. "Now, Gerry, what happened?"

Gerry addressed himself to Carshott. "An hour ago she interrupted George and me in the lab." He passed a hand over his face, trying to pull himself together and see this thing in proper perspective. "She only said she wanted to see me. She said I was to go out on the beach where she would be waiting—"

"Yes!" said Carshott. "And so she told you we'd had a row and that she had gone into town and settled half her estate on you. It's plain enough that that was all you wanted—" He shook a thin fist at Gerry. "I'm going to get the police!"

"What!"

Carshott pushed between George and Gerry and ran to his car.

Gerry started to follow, but George held him back at the door. "Let him go," he urged. "The drive will sober him up." He leaned out of the door, shouting. "Fetch a doctor as well."

As the Carshott's Bentley jerked forward with headlamps glaring, George picked up a mirror and went to hold it before Mary's parted lips.

Gerry held his breath, and they both saw the faint haze together. "I don't know what we can do," murmured George. He bent closer and pointed to a small mark, like an acid burn on Mary's pallid cheek. "I don't remember that."

"Something bitten her? But what on Earth could paralyze her like that?" Gerry felt so helpless. In spite of a surge of hope that she still lived, he felt quite lost, dependent on George. Words suddenly came racing out of him, telling exactly what had happened on the beach.

"You didn't notice," murmured George. "But Carshott never liked you. I heard them once or twice. I reckon he thought of you as some alien life form from Mars. She reacted by demonstrating her love for you more and more. I can see both points of view . . ."

He picked up a travelling rug and tucked it in around Mary. "We dare not do anything until we know what has happened. Now listen, Gerry." His sober, hazel eyes met Gerry's agonised gaze. "Something very strange is going on here. You see a

creature like a lizard. You say its tracks led towards an empty crustacea shell—"

"Yes—and to Mary!"

"Exactly. But up till now no creature like that has been known to exist in this part of the world."

"That's right." Gerry shook his head.

George licked his lips. "The crustacea are known to be lessening in numbers. Here we have an empty shell of one and . . . a lizard. Do you remember what happened with the Axolotl?"

"Eh?" The Axolotl was an Earthly salamander, which lived in a particular lake in Mexico. Towards the middle of the 19th century specimens had been taken to Paris and kept in a tank of water. And they had changed . . . becoming a quite different variety of salamander able to live on land. Iodine in the French tap water had stimulated the creature's thyroid gland and it had not lost an inherent possibility of full development—which, however, had been denied to it by the lack of that element in the water where it existed as a permanent larval form. Gerry began to understand. "You think the crustacea . . ."

"It might. Nobody suspected the Axolotls might change until they were moved. You know that the high mineral content of the Mediterranean seemed to be particularly suitable for all three forms of Martian life. Perhaps the crustacea are changing. I . . . had come out to look for you, when I heard you shouting. Gerry, that specimen the fishermen brought us yesterday . . . We thought it was ill, but might it not be changing? It was acting very strangely . . . Will you be all right here, if I go back into the lab?"

"I suppose so. If there was only something we could do?"

"Perhaps," said George, "we will be doing it by keeping an eye on our enfeebled M. Crustacean."

Gerry followed him to the door of the caravan and watched him cross towards the trailer laboratory. He was about to go back to Mary's side when George halted.

"Gerry! I've just seen something. Bring a torch, will you?"

Gerry pulled the torch from his pocket and jumped down, swinging the light as he hurried forward. "What was it, George?"

"Something dark and shiny . . ."

A shiver ran down Gerry's spine. "There it goes!" He pointed to a glistening tail wriggling out of sight behind some rocks. He took a pace in pursuit, but George held him back.

"Steady, Gerry my boy. It's come here for something."

"Its mate in the lab!" hazarded Gerry.

George's grip tightened on his arm. "You know the feeling, eh? Stay here a minute, while I take a look at our M. Crus."

"All right." Gerry flashed the light all around the flat stretch of shingle, then lighted George's way.

A wedge of brilliance shone from the opening door of the laboratory. It touched something dark and glistening which moved. Gerry turned his flash on it and the creature turned tail and went racing off with its wriggling, apparently awkward but very fast gait.

He sucked in a breath. The evening breeze from the land seemed suddenly chill and he shivered. Sweat was prickling out on his skin.

"George," he said, "it was coming back. But it's gone off again now."

George, silhouetted by the lab lights, peered out. "Gerry, our M. Crus. is changing . . ."

"It is?" Gerry looked across the shingle at the caravan in which Mary was lying so lifelessly. If she did recover consciousness and found herself alone . . . Why, she might go crazy with terror—

Yet, as she was, he could do nothing.

"Gerry! You must come and look at this. Quick!"

Gerry flashed his light around the silent rocks. No sign of anything.

He ran to the lab steps, mounted them.

The lab was alive with moving light, reflections of the bubbles rising through the two aquariums, one containing the normal M. Crus. It raised itself up on its six central legs and its claws beat a muffled tattoo on the glass as it tried to attack them. The other M. Crus. was, at first sight, merely clinging to the overflow grill with its smaller claws while its larger claws and legs drooped inertly. Gerry noted that the movement of its breathing hairs—just above water—had almost stopped at the back of its armoured head. If it saw them it gave no sign.

Then he saw that its belly had split—just as with the empty shell on the beach, and that something was coming out—a reptillian head, flat jawed, but higher over the brain casing than any earthly reptile he had seen. Colour almost black. Eyes

blinking. It writhed and struggled in spasms of increasing strength to free itself.

George took the flash from his nerveless hand and shone it around outside.

"See anything?" asked Gerry.

George cleared his throat. "No."

"Mary—all quiet over there?"

"Yes."

The head came free and a small, thin "hand" with six digits was thrust out below it. Another hand came out on the other side of the head. It seemed to see them now, its eyes staring with the expressionless wariness of its kind. The two hands were gripping the tight belly skin, and Gerry noted that the six digits were set in three opposing pairs. They strained the skin apart and the creature slid out as far as it could push itself, and hung for a moment as though resting. Then it struggled anew, twisting and writhing until its two hind limbs, similarly equipped with digits, gripped the slit and thrust itself through to complete freedom.

The empty shell of the *M. Crus.* hung limply, swaying in the slight movement of water caused by the bubbling air.

The newly born lizard, sleek and soft skinned, sank gracefully to touch its toes upon the sand of the bottom of the aquarium. There it stood, eyeing them balefully.

"That's something," whispered George, "that no one has ever witnessed before on Earth."

He had been holding the light of the flash outwards at the beach and now he swung it around.

"Anything?" asked Gerry.

George shook his head.

Gerry swallowed. "If we had a sample of the poison these things use . . ."

"Exactly," said George. "Now listen. One of us has got to fish that thing out of there and get that sample. There's no sense in both of us risking our necks. Yet I don't feel like waiting around while that other one outside stalks us and if Mary comes around, she'll want you—not me. So go back over to her. Carshott will be bringing help and you can tell them what we've seen. Even that much is very important. What puzzles me is why these lizards aren't caught in nets. They seem at home on land . . . but no one has ever seen them before. It's still very queer. I can't get it straight in my mind." He looked around

at Gerry. "Well, are you going to be sensible and do what I say?"

"Dammit!" burst out Gerry. "I can't let you tackle that thing alone. You're talking crazy. You know Mary's not going to come around—"

"We don't know that. We don't know anything, Gerry. This is something that's never happened before!"

"Well, anyway, I'm staying," declared Gerry. "That'll make two of us. If it gets one, the other will be able to analyse the poison . . ."

"All right."

George came all the way into the caravan and closed the door. He stepped to the locker, and the lizard's unblinking eyes turned to follow his movements while the normal *M. Crus.* flung itself at the glass to attack him.

Gerry turned to look at it. Never had it given vent to its natural ferocity with such abandon. He peered at the lizard and its eyes turned to meet his, like slivers of steel in iridescent irises. He shivered.

A kind of cord came from the back of its head, trailing loosely in the water. Could that be a sort of umbilical cord which had attached the developing lizard's brain to the rudimentary nervous system which must surely have been left with that hard crustacean shell?

How still the creature was. Only a reptile could remain so absolutely motionless. But this was a Martian creature, quite unknown apart from its superficial likeness to reptiles of Earth.

George was coming back with surgical face masks and rubber gloves. Gerry took them and put them on without taking his eyes off the creature in the tank.

He looked at George's eyes. "Ready?"

"I'll get the big hand net," said George.

He moved between the two tanks with the unchanged *M. Crus.* following him around with thin armoured legs swimming and big claws snapping and clicking on the glass with unprecedented fury for all the world as though it were trying to help its metamorphosed comrade. Gerry's heart pounded. He felt that George and he were up against something quite different from any problems man had ever had to face before. Instinctively he looked for a weapon, picking up the small net on a long cane which was used for taking excreta and other unwanted matter out of the aquariums.

George straightened and lifted off the heavy, perforated zinc top from the lizard's aquarium. He put it down without bending or taking his eyes off the alien creature. He lifted the net. Its rim touched the surface of the water.

Suddenly the lizard moved. It streaked up from the sandy bottom, thrusting with undulations of its tail and seeming to run up the glass side. So unexpected and swift was this manoeuvre that before either human could react it was gripping the edge of the glass with its pairs of opposing digits, head erect, jaws so wide that they almost made a straight line up and down. Its tongue flicked forward. It seemed quite a short thing within the dead white mouth.

George clapped his hand to the small space between his eyes and the surgical mask. "It's got me—"

He staggered back a pace, his eyes glazing over.

Gerry hit wildly at the back of the lizard's neck. The end of the cane whacked into the water and smacked against the glass so that the full force of the blow was lost. But the springiness of his improvised weapon pinched the creature's neck and Gerry saw that he had it pinned helpless.

"Got you!" He reached out gingerly and closed his gloved hand around its smooth, glistening neck. He lugged it clear of the water and drops showered all around as it writhed and twisted and used its strange little hands to claw at his gloves.

Then he saw that George was passing out, knees buckling as the death-like paralysis of the lizard's poison circulated into the blood stream, touching nerves. He grabbed at George's coat with his free hand, at the same time trying to keep the open jaws pointed away from them both. George suddenly became a dead weight, dragging down Gerry's hand.

Gerry let go and looked at his capture. Its eye nearer to him was swivelled around, watching him and its jaws stayed wide. It seemed in no discomfort from the strangulation grip on its neck. The cold of its flesh was striking through the glove. Probably, being a cold blooded creature, its oxygen requirement was small.

In its lower jaw something moved. No doubt it breathed as did Earthly lizards, lacking the lungs of warm blooded mammals, but then again it seemed to have gill covers at the rear of its domed little head.

Its struggles stopped as suddenly as they had begun. It hung limply as though realising its impotence in the stronger grip of

the Earth creature. Gerry became aware of the unceasing tattoo being beaten on the side of the other aquarium by the M. Crus's armoured claws.

Suddenly his eyes brightened and he passed between the aquariums to where a mirror was fixed above the wash basin. He lifted the lizard and moved to one side at the same time so that he could see it in the glass and it could see him.

He saw the small furred tongue shoot out and a small sac below it vibrate. And he looked at the blob of liquid running down the glass. There was his sample for analysis.

He looked around for something to use to secure the creature. No matter what it was, this was not the time to destroy it.

And he heard a faint noise. Just like someone walking on the shingle, but coming very cautiously. But who could there be? Was he not all alone? It could only be sounds of Carshott coming cautiously back—the big car must have broken down.

A thud on the lower step of the lab trailer, and then on the second step. Gerry looked at the lizard in his hand. What to do with it? He couldn't put it back in the aquarium and risk having to catch it again. Well, just seeing it would convince Carshott that this had not been evil work between humans.

As the handle of the door went slowly down, Gerry decided. He strode to the door and flung it wide. He peered out. There seemed to be no one there, nothing—

Something dark and glistening landed on its feet on the edge of the spilled out light. It darted around, stopped, and was up on its hind legs and tail, jaws opening before he could move.

Shock turned into an electric feeling of terror. Instinctive reaction made him dodge. He felt the creature in his grip give a convulsive jerk.

The free lizard charged up the steps. He kicked at it but his reactions were too slowed by his fears. It reared up between the two aquariums, jaws opening.

Gerry suddenly realised the absolute futility of flight, and waited, fascinated by the outworldly thing. Was this how a rabbit felt when confronted by the lethal urge of a weasel? But no, his head was still clear—he still was trying to think of some means of offensive action, even while he waited, frozen by the strange but obviously deadly accurate marksman from another planet.

But the lizard's tongue remained furred. Its jaws slowly closed and its eyes . . . they seemed to be upon its fellow in Gerry's grip rather than on Gerry himself.

Gerry too looked at his captive. And he saw the burn mark of the poison standing out on the sleek dark side. He shook the lizard and it was like a dead thing.

The lizard that had been outside shut its jaws and slowly sank on all fours. Gerry stared at it and could not help but remember how he had felt just the same as this creature had done when he had discovered Mary's inert body.

It was so weird and yet so reassuring to find that one had a bond with such a creature, that he suddenly became very calm.

He bent slowly and placed the inert form on the linoleum floor between them. The lizard's eyes met his, expressionless as ever, and yet—

Gerry recalled how well it had reproduced the sounds of human feet and how it had known—surely from watching only once—that to open the door of the trailer, one turned the handle.

And he thought too of the bond which seemed to exist between the M. Crus. in the tank—he glanced sideways, how still it was now, watching them—and between the two altered creatures which were nevertheless of its own kind.

The lizard turned, moving slowly, and Gerry, no longer frightened, watched it walk to where Martian weed was growing in dishes. The weed was used to feed insects which had to be fed to the specimens, and what could the lizard want with it?

The creature pulled a stool up against the bench on which the weed rested. It climbed the rungs of the stool and picked up a piece of weed and tore off its leaves with its small, strange hands.

It came back towards Gerry and its prostrate mate. Crushing and breaking the leaves, it let the juices drip on to the burn mark while Gerry watched in fascination.

It stood back, again watching Gerry, as though any moment it might rise again to its stance of attack. Gerry almost felt himself matching its stillness. The first move came from the lizard between them. It twitched. It gathered itself and wriggled over on to its stomach, resting there, and then rising somewhat unsteadily to its four odd feet.

Only then did it notice Gerry, tensing—freezing and then whipping round and rearing up. Its mouth opened.

For some unaccountable reason that was the last thing Gerry had expected. He thought dully that he had been reading too much into the apparently intelligent actions of its mate. And he stared at the little furled tongue, helplessly.

And then suddenly, both lizards turned—and went like streaks of light past Gerry's feet, out into the darkness, soundlessly.

For an instant Gerry stared after them. He rubbed his sweaty hands on his slacks and turned to George—unconscious as the lizard had been.

The Marsweed. Antidote for lizards touched with their own poison—so why not for humans, too?

Three minutes later, with George, still somewhat shaky behind him, he was meeting the dawning awareness in Mary's blue eyes with joy in his heart, when cars roared down the cliff road to the encampment.

A short while after that he was listening, with his arm around Mary's soft shoulders, while Carshott snapped:

"And you mean to say you let the little devils go?"

"I did," he replied, very steadily. "Have you forgotten that fifty thousand M. Crus were brought to Earth? They left me alive, those two, and they must have known they had given us the antidote to their most potent weapon. Perhaps we should think of them as our ambassadors to a race which we brought here for . . . our own ends."

E. R. James

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Mr. Carver tenders his apologies for the intentional parody on John Christopher's recent book The Death of Grass. As we agree—it was too good a pun to miss !

DEATH OF GLASS

By Philip Carver

The *Thing* whistled across the evening sky and landed in Hyde Park, burying itself deep into a flower bed. Police Constable Ernest Howton was the first person to reach the spot, and he covered the last four or five yards with great caution. Then, standing on the edge of the crater, he shone his torch in an attempt to see how deep the hole was. But all he could see was dirt, where the earth had fallen back into the hole.

Later, police, detectives and a Home Office man all stared solemnly at the crater without enlightenment. The Home Office man probed the hole gingerly with a steel rod, trying to locate the hidden object without success. Whatever had made the hole had not come straight down out of the sky ; that much was proved by the fact that the tunnel it had dug for itself went down at an angle of forty-five degrees.

"We'll have to organise a dig," he stated.

The work was entrusted to a Bomb Disposal Squad of the Royal Engineers because of the belief that the missile may turn

out to be an unexploded shell, although there was some confusion of thought as to where it had been fired from, and by whom. But the shell theory died when the Engineers had dug a tunnel seventeen yards long, without so far reaching the object. No known projectile would have penetrated so deep, and now it was believed to be some sort of meteorite.

It was not until the Engineers' tunnel was fifty-three yards long that the object was uncovered. The officer in charge studied it carefully in the light of his torch, without coming to any conclusion. The object was round, slightly larger than a football, and black. There was no sound from it, no radiation.

"I'm going to shift it, Sergeant," the Captain said into his head and chest telephone. "So far as I can see it looks safe enough."

But when he tried to lever the sphere towards himself he found it impossible to shift, for it seemed very heavy. Just how heavy, he was to appreciate before long, for the combined efforts of three men with crowbars—all that could get to work in the confined space—failed to budge it an inch. In order to raise the ball to the surface the Engineers had to sink a shaft down to it in a straight line from above and bring up a heavy crane.

From the moment of its striking the earth, to its being brought up to the surface was six weeks, and it was taken away from the site on a tank transporter. For although the sphere was not much more than a foot in diameter it weighed nine tons.

At Maxval Research Establishment the sphere was subjected to the first tests, and the second surprising fact was revealed, for it was found that it was made of stone.

"I can't believe it!" Dr. Grant, who was in charge of the team examining the object shook his head. "Stone, of that density!" However, the fact was incontrovertible.

Samples taken from twenty different points on its surface all showed the same quality and composition, and it was not until the tiny quantity removed was weighed that a discrepancy arose.

"The inner core of the sphere must have five times the density of the outside layer," Doctor Grant explained to his personal assistant, Howard Lewis. Lewis, a thin, careful man, was not popular, for his insistence on meticulous work amounted to a fetish, even in a scientist. Lewis was also a nervous man.

"Do—do you think it might be a missile after all, Doctor? An outer case containing some form of explosive?" He swallowed

several times. "Perhaps if we were to hand it over to the army . . . ?"

"If we did that, Howard, we'd be robbing ourselves of a lot of excitement," Grant answered. "No, I've got other ideas about our pet." He launched his bombshell. "I think it's alive !"

"What !"

"Yes, I think it's some form of life." Grant went on to explain. "You haven't seen the temperature charts, have you ? . . . I thought not. Well, Howard, our pet is now two degrees warmer than it was yesterday."

"Spontaneous combustion, you mean, sir ?"

"I don't know, Howard, I don't know. I'm inclined to think not ; I think there's some form of intelligence at work."

"But, sir, that isn't possible !"

"Isn't it ? Then how did it get here ? By accident ? No, Howard, I think there's something inside that sphere—something that's trying to get out."

Lewis went a pale green, staring at the globe with popping eyes. "You mean you think that might be some—some sort of a spaceship, sir ? It—it doesn't seem possible." He gulped. "And you think it's trying to *get out* ?"

"Yes, and I propose to help it. I'm going to try to open that thing up from the outside."

Doctor Grant's belief was strengthened by a work he had just been reading—a tome dealing with the life and death of coral-building zoophytes. In the absence of any other explanation, he felt that a likely possibility was that the sphere had been built by a similar life-form.

"But, sir, that might be terribly dangerous ! There's no way of telling *what* might be inside . . . it may be some bacterial type that would prove deadly . . . !"

"So it might, Howard. But there's only one way we can find out, isn't there ?"

A diamond-toothed saw was used to cut into the globe, the surface of the groove being examined after every stroke of the saw until it was seen that the outer case had been pierced. But the contents of the hollow ball, once drained from it, proved to be unexciting. It was a clear, greenish-tinged liquid, enormously heavy, that defied analysis. There were present in it minute traces of silicon, but that was the only element that could be identified.

Doctor Grant looked at the liquid contemplatively. If there was anything alive in it, there was no sign of it. The electron microscope had failed to show anything, but Grant was not convinced. "Well, at least we can see what we're working on," he said to his assistant. "Tell you what we'll do, Howard. Keep most of it in this stainless steel vat—there isn't anything else strong enough to hold it—and run, oh, twenty batches through as cultures."

With precise instructions as to what was to be done, Howard Lewis set to work. The first thing to do was to get the necessary culture dishes, sterile gauzes, and jelly ready for the task. "Willie!" he roared, when he got inside the lab. "Willie! Wretched youth, where are you! . . . Ah! there you are. Hiding and idling as usual, I suppose, eh!"

Willie Smith, laboratory boy, general labourer, errand boy and tea-maker, hurried towards the assistant head of the laboratory, regretfully pushing, for the moment, dreams of his wonderful love into the background. "Yessir?" he gasped. Lewis always had the effect of making Willie feel short of breath—even more than did Hilda, Willie's beloved.

Lewis pointed to a waste-basket. "Smith, you are the most untidy, hopeless creature!" he stormed. "Did I not tell you that all waste-baskets should be kept with their nearest edge four inches from the main passage-way? Look at that, boy! It must be jutting into the passage-way at least an inch! Do you want to cause an accident? Someone might easily trip over the thing."

"I—I'll put it right, now, sir."

Lewis raised his eyes in despair. "Don't go rushing off when I'm speaking to you. Now listen, I've got a job for you." He told Willie what was to be done, repeated it, and then went over it a third time in precise detail. "Do you think you can remember to do that?"

"Yessir." Willie was pained. Lewis knew that all the jobs he dished out were done perfectly. "Old fusspot!" Willie muttered under his breath. For a few minutes he day-dreamed of the time when he would march up to Lewis and hand in his notice, for Willie had no intention of staying in the Research Establishment—it was too far from where Hilda worked.

Hilda! Dreamily he started out to do the jobs detailed by Lewis, his body going slowly about the task, his mind kept happy by the thought of meeting Hilda at seven.

Howard Lewis found the task of preparing several thousand cultures from the unknown liquid a tiring, uncertain task. The liquid was so heavy that handling it a drop at a time called for considerable physical effort after a while. It was unfortunate for him that, tired after the day's work, he failed to see a wastebasket where Willie had temporarily left it, and went sprawling over it.

Willie left the Establishment with a feeling that the sooner he found another job the better it would be, but after an evening spent in Hilda's company he felt better, and when he went to work next morning the events of the previous day were apparently forgotten by Lewis.

"Mr. Bewdley's out today," Lewis said when Willie answered his summons, "so I shall want you to check the Batch temperatures and growth." He bared his teeth in what was meant to be a smile. "And mind how you do it!"

It was routine work that could be done almost without thinking, but Willie's mind was fully occupied, although not by the work on hand, and he had the misfortune to put the pad of notes he was making on the edge of one of the benches. The pad fell, and as Willie made a grab at it he knocked some of the culture dishes to the floor, smashing one of them.

Hastily, before Lewis found out, Willie swabbed the mess from the floor, his nose tingling as he did so. From the smashed dish rose a faint odour that tickled his nostrils. He sneezed, blew his nose, then sneezed three times more as the clock on the lab wall pointed to 4.31 p.m.

At 6.31 p.m. precisely, when the lab was locked and empty of human life, strange things began to happen. First one, then two, then four, then eight of the glass culture dishes disappeared. One second they were there, each with its speck of greenish-hued liquid resting on it; the next second dish and liquid had gone from view. Within ten minutes, clock-face, phials, test tubes, retorts, glass dishes and windows had all gone.

As this was happening, Willie was scraping away at his chin, plying the razor vigorously. The daily act of shaving was with Willie more of an act of faith in things to come rather than necessity, but tonight was rather special. Hilda's firm was giving a party in the works' canteen and he didn't intend to go there looking like a tramp.

A sneeze escaped him, then three more. He looked at his watch. 6.52 p.m. Plenty of time. He didn't have to get to the party till nine o'clock, and it would go on until the early morning.

Willie frowned anxiously at himself in the bathroom mirror. All those sneezes ; he hoped it didn't mean he was going to have a cold.

At 8.52 p.m., just as Willie was approaching the entrance to the works where Hilda was employed, strange things began to happen in the bathroom where he had been a couple of hours before. The mirror went cloudy, then disappeared, followed in quick succession by the various bottles scattered around, the window, and the glass surrounding the filament of the electric light bulb.

At 8.57 p.m., Hilda was conducting Willie through the works yard. "Come in here a mo'," she breathed, drawing him into the darkness of the warehouse. Willie kissed her, then began to sneeze violently. He sneezed once, then three times. Then, after blowing his nose, he left the warehouse and went with Hilda to where Pinkerton's Glass Works party was in full swing, in the works' canteen. By the time they reached there, Hilda too had begun to sneeze.

Philip Carver

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Life beneath Earth's oceans has taken on a bizarre and utterly fantastic aspect to 'manfish' Jeremy Dodge, late of the Space Force, as he and companion Harp endeavour to find a method of escape from their under-ocean slavery in the farmlands of the Continental shelves. Now added to their troubles is the even greater mystery of the ocean depths.

GREEN DESTINY

By Kenneth Bulmer

Illustrated by LEWIS

Conclusion

A difficult financial decision faces the United Nations—to push ahead with the development of interplanetary travel within the Solar System or grant immediate aid to the Under Ocean Patrol, a sub-mariner force essential for policing the underwater farmlands of the continental shelves. Most of Earth's produce now comes from beneath the seas and vast combines have sprung up to exploit these natural resources. A bitter rivalry has developed between many of the companies, culminating in a form of gang-warfare with sudden raids of destruction and the all-important purpose of capturing under-water workers.

Hopelessly outmanoeuvred by the raiders owing to insufficient man-power and funds, U.O.P. chief Simon Hardy demands of his



superior, Secretary Henderson, still greater financial aid from the U.N. Henderson states that the reverses U.O.P. have suffered are swinging opinion into backing the conquest of space, especially as four submarines have now been lost in mysterious circumstances in the Juliana Trench, a 25,000 feet deep gash laying across the southern trade routes.

Commander Jeremy Dodge of the Space Force has been summoned to meet a Mr. Grosvenor, executor of his Uncle Arthur's will, and is met by Elise Tarrant, Grosvenor's secretary, who takes him to the Blue Deep Hotel where Grosvenor is expected. The hotel is actually under the ocean and they reach it by taking a dirigible from the shore and landing on the roof, which is above water.

Dodge is completely mystified by the peculiar circumstances of the arrangements and although greatly attracted by Elise Tarrant feels that there is something deadly behind the assignment. Despite this, he agrees to accompany Elise in skin-diving equipment to an underwater chalet where Grosvenor has gone on a hunting expedition. Leaving the hotel airlock they ride by underwater aquaplane to the chalet but as they reach their destination Dodge is attacked by three men and drugged by hypodermic injection.

When he recovers he finds that he now belongs to one of the under-water slave gangs who eke out an existence farming and riding herd on the fish life. There is no escape from his watery prison—the workers are confined to air-bubble globes when off-duty and zealously guarded by trained sharks while farming the deeps. Of Elise Tarrant there is no sign and he realizes that he has been deliberately pressganged into a life fraught with danger.

Making friends with another diver named Harp the two, after much planning, manage to cut their way through the wire nets used to herd fish, but are not free for long before they are captured by a rival Company and imprisoned in a sub-tow balloon to avoid discovery by a prowling Under Ocean Patrol submarine. Dodge discovers that Elise Tarrant and a young Siamese girl are also captives and the three, together with Harp, fight their way out of the sub-tow balloon back into the deeps—only to be intercepted by another prowling submarine and netted.

Separated from Harp and the girls, Dodge is imprisoned in a tiny cell and a surgical operation performed upon him, turning him into a water breather. After his recovery he is soon trained as an expert man-fish and joins a team working the farmlands of the ocean bed. Some weeks after his operation Dodge again meets Harp, who

has quickly risen to the rank of overseer, but Harp ignores him and Dodge feels that he has lost his only friend.

Above the surface, Henderson, Minister of Aquiculture Werner, and Simon Hardy confer as to how best they can combat the guerilla warfare now extending throughout the deeps. They are joined by Captain Pinhorn of the Space Force, who has been sent to investigate Dodge's disappearance. The meeting is adjourned to Hardy's underwater base where another underwater expert named Ferenc joins them. It is at this meeting that Henderson drops his bombshell—the conviction that there is some other form of intelligent life living in the ocean deeps, and that it could possibly be alien. He feels sure that it is this alien life-form which is responsible for the number of deep-sea submarines lost while on patrol.

Dodge eventually earns promotion and finds that with the greater freedom he is beginning to enjoy his underwater life. On a patrol he is separated from his party and drifts near an underwater hotel—peering through the windows he sees the rooms are filled with air-breathing people, and suddenly discovers Elise Tarrant and the Siamese girl. They communicate with each other but Dodge is eventually driven off but not before he has killed two of the guards.

Some days later Dodge is detailed with other menfish to patrol the perimeter of their area. During the night his area is invaded from below and a fantastic battle ensues. Dodge is sent back to base with a message and while there watches the asdics reporting the mass invasion by barracudas—the entire area soon becomes a bloody shambles. In the battle Dodge again finds Harp and the two try to break for freedom, but are engulfed by the tide of barracudas—now killer-crazy.

XIII

The result of the debate on the 'Under Ocean Phenomena of an Inimicable Nature' had been catastrophic. By a small majority, the Assembly and the Security Council had voted to drop an atomic bomb on Juliana Trench.

Simon Hardy was livid. Henderson was tensed and nervous. Minister of Aquiculture Werner could talk of nothing but the danger to his crops and herds.

In the turmoil following Henderson's announcement of the possibility of intelligent life of an extra terrestrial nature in the Juliana Trench, and the absolute chaos shattering coherent consequent thought on the U.N. decision to drop a 'small' atomic

bomb, a 'punitive' atomic bomb, Captain Pinhorn of the Space Force and his queries about a certain missing Space Force commander had been brusquely brushed aside. Pinhorn raged, but raged vainly. "Wait until Mr. Grosvenor gets here," he had been told. And when Grosvenor had arrived and been questioned he had said that he didn't know where young Dodge was, and he had added testily that he'd also like to know what had happened to Miss Tarrant who was an efficient secretary, and good secretaries were difficult to get these days what with all the girls chasing off to go sea-larking about under the water . . .

A fast trip by submarine—quicker than by stratojet as he was able to decompress during the voyage—to the Blue Deep Hotel was just a waste of time. He had learned, though, that a young Siamese girl and her brother had vanished at the same time as Dodge and Miss Tarrant. Apart from that, everyone said, going back to their harpoons and flippers and making for the air-locks and the husky young instructors, they didn't know a thing. Pinhorn fumed.

The Ocean triumvirate—Henderson, Hardy and Werner—did all they could to reverse the U.N. atomic bomb decision.

They lobbied and pleaded, threatened and bribed, quoted sea pollution, destruction of food stuffs—all in vain.

"If," said Dahlak Major, U.N. secretary, "you weren't worried about these monsters under the sea, you wouldn't have brought the subject up in Assembly. They'll be dealt with, the seas made safe for your exploration, and everyone's happy." Dahlak smiled complacently.

"But that's not the point!" Hardy had answered from Trident. "We want to go down there as friends. If they have an atomic bomb dropped on them, and they're really some sort of people from another star system, then what will they do next? It's like stirring up a grouper with your little finger. If you're going to drop anything on them," he said wrathfully, meaning to ridicule the idea, "why play around cheap-skate stuff with an atomic bomb? You'd much better drop a hydrogen bomb on them and do the job up good!" His voice loaded with sarcasm.

Dahlak said: "Okay, Admiral Hardy. If you want a hydrogen bomb dropped, an H-bomb it will be. Settled."

When Hardy had got through cursing his big mouth, Henderson waded in. Nothing could convince the Security Council that this was not a grave threat to the security of Earth. As Dahlak put it: "Man is reaching out to the stars. Pretty soon we'll be on the satellites of Saturn." Here Toxter of the Space

Board had nodded complacently. "So we just cannot have any extra-terrestrial race stabbing us in the back from our own door-step." Hardy and Henderson knew what he meant, all right, however garbled his way of saying it. "We are the masters of our own planet—all of it. Including the seas. No monsters from other planets are going to start taking those over. No sirree."

So that was that. The Air Corps Department of the Defence Forces took over and readied a ten-jet bomber. The plane was an anachronism, anyway, and they had to get it out of mothballs and that took time.

Meanwhile, Captain Pinhorn reported to the Moon that he was getting precisely nowhere, and suggested that pressure be brought to bear on Toxter to bear down on Henderson. That idea was negatived. No-one had any other thoughts at the present time than the H-bomb that was going to be dropped on those terrible deep-sea monsters, all eyes, with the nerve to come and set up house in Earth's own seas.

Pinhorn requested and received permission to carry out private work on the case and at once went into closed session with Pierre Ferenc. By the time their party broke up—with an empty whisky bottle to show for it—they knew exactly what they were going to do. Whether it would be any good, neither of them knew.

Hardy had seized this opportunity to press for a drastic increase in his personnel strength—and had won. Jubilantly, in some small way partially compensated for the stupendous blunder in dropping an H-bomb, he planned to clean up the Bishop Wilkins farms. He was looking forward to that work. And, for the hell of it, and as Grosvenor was still down in Trident, he'd start with the Artful Dodger.

When he called for his aide, Pierre Ferenc, though, he was told that—under orders from him—Ferenc and Captain Pinhorn had taken off in a sub, with all manner of supplies, headed for an undisclosed destination.

Hardy started cussing—and then a gleam came into his peculiar eyes. He smiled.

"Young rips. Off after that Dodge, I'll bet. Well, good luck to 'em. As for Pierre—I'll have a most unpleasant quarter of an hour with that young man when he gets back—if he does," he added, suddenly thoughtful.

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A ghostly glimmering sheen lit around his thrashing fins. Hundreds of tiny noctilucae sparking as they were jolted formed a shimmering train to his frantically labouring body. Dodge had never been more frightened in his life. As never before he was conscious of his surroundings, the immense depths of water around him, the insubstantiality of everything, nothing still, nothing onto which he could grip and hold. He felt suffocated, crushed, panic stricken.

Sweeping in from the open sea hundreds of swarming, torpedo-shaped bodies flashed with their trails of noctilucae, creating an unprecedented display. Surging in with blood hungry, stimulated lust, thousands of barracuda tore into the pitifully weak and fleeing men and sharks and terrified fish. In the darkness only the occasional flash of a lamp, lighting up the waters momentarily with a greenish glow, or the summer lightning of the fire-lit noctilucae, served to show for an instant the terror and drama being enacted in the deep.

Dodge and Harp flew with agonised speed, expecting each moment to feel the grip of great jaws around their feet or, in the last expiring fragment of life, to feel their sides torn away. The suspense, just pumping madly with his flippers and thrashing with his arms—against all common-sense—almost unnerved Dodge. When he saw in the instant before the collision the great body before him, saw Harp reel back from the blow, he knew that they were lost.

Something hung there in the darkness off the rim, something dead and silent. Dodge thrust desperately to fly around it. Something protruded from it, something hard. His spear rang on metal. He stared, too shocked to think.

It was a sub. A two-man sub. Drifting, lightless, dead. Now he could feel the current which had dragged it here pulling at his body. Harp swung round. His headlamps blazed up. Their dumb-bell glare glowed on metal hull, elevators, conning-tower, periscopes, a flung-open hatch.

Harp flicked himself up. Dodge followed, his heart struggling to thrust his viscid blood around his body.

The sub was empty.

Harp went in head-first. As Dodge poised to dive in he was for an instant conscious of the sea pressing around him as a living, hating, implacable enemy.

Even as he went head first into the sub, he felt a tremendous blow on his right leg. His calf hit the side of the conning tower and immediately his leg went numb.

He fell down on top of Harp. He felt arms reach past him. There came the muffled hissing-thud of the gas harpoon. His ears sang. Then Harp had reached up, thrusting with Dodge's spear, forced the barracuda out and pulled down the lid. Absolute darkness engulfed them.

At once a terrible panic assailed Dodge. Had anything else crawled or swam or slithered into the sub before they had found it? Were there voracious man-eaters even now stealing upon him from the darkness? He could not scream. He tried to. His throat muscles jumped and strained with the effort.

Something touched him. His head cracked against the roof in automatic response. He nearly blacked out.

Harp said: "That was a near go, Jerry, old son. We only just made it."

Dodge sagged. He could not reply anyway; if he'd been standing in the cool crisp air of a summer evening in an English garden, he could not have spoken to save his life.

"Put your lights on, Jerry. Yanked the flex out of mine squirming through that manhole up there."

As he switched on his headlights with trembling fingers, without strength to curse himself for forgetting them, Dodge was remembering that other manhole through which he had fallen. That had been the beginning of nightmare. This time it was the beginning of life.

They were in an enclosed space filled with machinery controls, dials and meters, thick tubes and trunk pipe leading everywhere. Harp pushed the butt end of a tube upwards; Dodge guessed it was the periscope although from where he was jammed against the overhead he couldn't see the eyepiece. He became aware that Harp was staring at something below his feet. He glanced down.

His right flipper had been chopped off cleanly an inch from his foot. The plastic looked as though it had been perforated and then torn along the holes. He knew where the rest of the fin was. In that barracuda's mouth.

He clung to the overhead, feeling sick.

His leg was still numb. The rest of his body was at once on fire and deathly cold. He shivered. Harp pursed his lips.

"Hold on, Jerry. Reckon this sub came along right on time." Dodge wanted to say something; but it felt too weak to carry out the pantomime of forming words. Harp went on: "I don't think there's much point our going back to the command post now. Don't think much of it will be left."

After his experiences, Dodge couldn't agree more. He wedged himself more comfortably against the lattice-work of tubes and struts against the bulkhead and made little effort to fight the fatigue that broke over him.

Harp said quietly : " Look down here, Jerry."

Dodge moved his head down. The dumb-bell shape of light from his twin headlamps flicked across the metal walls and piping, centred on Harp's feet. The harpooner was standing on the deck an opened locker door held up with one hand ; with the other he extended a throat microphone and amplifier set. " Lucky find, Jerry. Now you can tell me what you think of me for calling you a slavey."

As Dodge took the set he smiled wryly. So Harp hadn't forgotten, either ! He adjusted the equipment, coughed and swallowed and heard the gulp echo in the sub's control room. Then he said : " All right ! " He laughed, weakly.

" You all right, Jerry ? "

" Yes. Those barracuda—scared the living daylights out of me."

" Me too." Harp paused and Dodge sensed the awkwardness behind the next words. " Look, old son, I had to play it tough that day. I'd just got accepted into the guards, they thought I was a good boy willing to play it along their way, and I was scared someone might spill the beans on me. I planned to get you and Elise and Lura out—"

" How did you think you could do that ? "

" It wouldn't have been easy. I found out where the girls were hidden—funny I should go for that Siamese dame like that—guess I just don't know my own tastes—but there were always air-breathing guards about." He relished his scorn. " Clumsy, bumbling gas-tanks ! Still, they were too strong to be knocked off, and anyway, getting the girls out from the rest of the harem would have been a—"

" Harem ! "

" Well, what did you think they wanted those girls for ? Waitresses in the officers' mess ? " He sounded bitter. " I don't know what happened to Elise or Lura ; never got a chance to speak to them ; but as soon as I'd found you I began to put the plan into operation."

Dodge was expected to say : " What plan ? " Instead, he said, " I had a chat with Elise. Just before I got out here. Up to that time she and Lura were okay. But they were having a

bust-up with a rat-faced punk as I left—I heard someone scream ‘Jerry’—and well—”

“You talked to them ! ”

Dodge explained. Harp said quickly : “That weasel faced animal is Danny Agostini. Personal bodyguard to the boss. No-one ever sees *him*, of course. He was the rat who took us in the sub. You remember, when we got out of that sub-tow balloon.”

“I remember. That seems like years ago.”

Through the metal hull came thumps from the outside world.

“Cuda,” Harp said laconically.

“What do you plan to do now ? ”

“Well, the whole situation’s changed. I was all for blasting in, knocking off the guards, getting the girls and heading for the surface. We’d have made it, too.”

“Perhaps. But right now ? ”

Harp gestured around the sub. “I’ve got a fair idea on running these things. They’re designed to be operated by men-fish and this one obviously had the crew knocked off by the raiders. It drifted in with that current that sets in along number four turbine generator—”

“I know it,” murmured Dodge.

“—and if we can then there’s nothing to stop us from using it to get the girls out. But I’m not going out there until daylight. Cuda—I hate ‘em ! So—I’m going to eat and then sleep. Check ? ”

It was aggravating ; but it was logical, and the only way. Dodge, summoning all his reserves, smiled, and said : “All right ! ”

After they had eaten, and just as they were twisting to find reasonably comfortable positions before going to sleep, Dodge remembered something. He swore tiredly.

“Damn ! I lost Sally ! ”

XIV

Far to the north the mighty herds were driven across the ranches of the ocean, coralled, branded and their annual toll taken. The factories worked overtime. The people of the dry land took the sacrifice of the whales and used it each in his different way, and spared a casual glance to the annual reports of tonnages and heads in the financial columns. Across the wide ranges of the open sea the shoals of fish moved, driven by electrical currents

that guided them through their spinal columns without their own volition. Subs checked their flanks ; but inevitably the sea was stained its muddy brown, the blood of a million fish that could not yet be adequately protected against the killers of the sea. Not yet had Man tamed his planet, not yet had he imprinted the orderly pattern of his husbandry upon all the creatures of the ocean.

Somewhere in that immensity of rolling water two men sat in a small sub. One man stared stupified at the other, who laughed and laughed and breathed exaggeratedly in and allowed the water to flow luxuriously from his gill slits.

Captain Pinhorn said incredulously : " But you can't ! You can't breathe under water ! "

Pierre Ferenc did just that, and said : " I'm sorry. I thought you knew."

He'd at last grown so weary of sitting in the air-filled sub, breathing through the deep-sea mask, that he'd abruptly told Pinhorn to watch it, and had flooded the sub. Pinhorn had one of the three-tank sets—two of helium and one of oxygen, with a demand regulator set to strangle the supply of oxygen with the increase in pressure so that at extreme depths no more pressurised oxygen was coming through than was necessary and therefore oxygen poisoning, fatal at nine atmospheres, could not attack. The two men guided the sub cautiously towards the Arthur Dodge Wilkins Corporation, watching their asdic, checking their position until at last they came floating into the shambles.

When they had covered most of the headquarters area, Ferenc sent back an ultra-sonic message to Trident. It was terse. Whoever had wrought this destruction must have the mentality of a maniac. A few barracuda still haunted the scene and Ferenc harpooned one and hauled it aboard. As he studied it, his eyes went narrow and his mouth turned as mean as the dead beast under his fingers.

When daylight at last seeped through the watery strata, bringing back to life that mysterious blue world of the undersea, Dodge and Harp stared eagerly from the port.

" If we were still in the current, we should be over the farms now."

Outside there was blueness, stretching away on all sides and upwards ; below was deep and impenetrable blackness.

" Well, that's that, then. We're lost."

"But that's impossible!" protested Dodge. "We can drive this thing, you say. There must be maps, charts. We can use the asdic—"

"Sure I can drive this sub. But can you figure out our position? Do you know where the farms were? Can you tell me which way to go?"

Dodge looked numb. Savagely, he began to eat. There was plenty of food in the lockers, together with a supply of drinking water, which they took through a non-return-valve spout. Just like space, Dodge said. Only—the trick was to jam the cupped end of the spout into the mouth against the palate, cutting off entry of salt water. When the meal was over, Harp said: "Think I'll take a look at the engines. Down that hatch." He pointed to the deck.

Dodge was leaning against the forward screen, idly tapping the metal rim. He glanced miserably over at Harp as the hatch cover came up. Harp flopped over onto his stomach and put his head down. He jerked up. His arm came back and in his fist was a man's hair. He hauled.

The engineer had been a fat manfish. There was little left on his bones now; just enough to show that he had been plump and well-fed. Dodge was just beginning to feel ill, and nauseated at having slept with that—that thing—down there, when Harp shouted in a high, shocked voice.

In a smooth flurry of flippers, he edged back. Over his armoured back Dodge saw the round eye, the pointed snout, the suddenly gaping head—quite unlike a shark's, with the chin more prominent than the nose—and the rows of needle-like teeth. He watched petrified. His hand stretched at last, breaking the spell, out towards his spear.

Harp suddenly shouted violently, beat his hands up and down, thrashed in the water. According to the rules, that should have scared off anything, including barracuda.

The fish didn't budge. It flicked its tail. Dodge knew it was going to hurl itself forward at an impossible speed, going to take Harp's head off in one gargantuan bite.

Everything happened as though frozen. His fingers gripped the spear. With his useless right flipper he could not balance properly—he twisted his body with muscle-punishing speed and hurled the spear. The point penetrated the eye of the cuda just as it hurled itself forward.

Harp rolled away. His fist took the pantherish body under the gills. The cuda, the spear standing out like a pig-sticker, rolled, trailing blood. Then Harp had his harpoon and had sent three arrows to splatter into the big, beautiful body. He was shaking all over. His convulsive swallowings crashed in the cabin.

"Damn cuda!" He lashed out with a flipper and tipped the streamlined body over. It wasn't dead yet, the tail moved spasmodically and the mouth yawned.

Then Harp had darted forward and was peering at the big, ugly head. Dodge joined him, to stare down. In the head, solitary, enigmatic, a single metal needle stuck up like a lone pin in a pin-cushion.

"See that!" Harp said sharply.

"Like that dying mother shark." Dodge told Harp about her and his acquisition of Sally, now vanished, as the harpooner worked away at the needle. When it was out they saw that it was an electrode, hair-fine—some of it had snapped off in the tiny brain beneath—and the thicker exterior part contained a minute electrical battery that had, they found by experiment on their skin, long lost its power.

"My ideas on that begin to add up," Dodge said slowly. "Electrodes in brains—in particular areas of brain. Harp, that poor damn fish had an electrical stimulus applied to a certain centre of its brain! And it doesn't take two guesses to know which part!" He was gripped with the wonder and horror of this discovery. "The pain centre! That fish was under the compulsive of continuous pain stimulation. No wonder those barracuda were raving mad!"

"I've heard about that. Experiments on rats."

"Yes. Radio-controlled rats responding to directions piped straight from electrical batteries into their brains. And now some devils have translated that to fish. No wonder the fish are under such absolute control. That shark had a nettle-field of needles. They must have been able to play tunes with her." He stopped talking abruptly. He put a hand to his forehead, rubbed his temples with finger and thumb. "When I was in that command post," he said, "I saw a row of menfish operating boards of keys, with screens in front of them. They were controlling the fish! By ultra-sonics! It's easy! Of course, that's the way they do it."

"Training; black and white, yes-no," elaborated Harp. "Indoctrinate the fish with simple commands. More complex

orders can be beamed out. Press this stud, the fish gets a jolt of juice in the pain centre. Press this stud, his fins flick left, release the pain—presto—he's going where you want him ! ”

“ That's about the size of it,” said Dodge.

“ In time you'd have a set pattern of conditioned reflexes. They wouldn't control every minute movement from base.”

“ They'd leave that to those operators on the two-man sleds ! ” Harp bent as he was talking and began to remove the dead manfish's flippers. “ They always seemed to be loaded with electronic gear. They could have got those fish to jump through hoops for them.”

They disposed of the dead engineer through the hatch ; but Dodge insisted that they hang the barracuda and the electrode buried in its brain in a store cupboard. Harp checked the engines and reported gloomily that they were beyond immediate repair. As the light increased in the waters beyond the port, throwing a shimmering blue lustre on all the metal surfaces and stroking pale fingers of vagrant pearl along the bodies and limbs of the menfish, Dodge and Harp tried with waning hope to control and guide the sub.

Harp, at length, looked through the port, and turned back to Dodge to say : “ Well, old son. According to the rules you and I should be due for the poisons tank.”

“ What's that ? ”

“ We're in an up current. Must have been swept across the farms during the night and now we're heading God knows where. But the water is definitely lightening. ”

And so it was.

Later on that day, when even the approach of evening had not brought its customary early pall into the depths and the water still showed long blue reaches, they had resigned themselves to drifting indefinitely under the surface. The first intimation they had that they were no longer alone came when three peremptory raps resounded on the hull. They exchanged baffled looks.

“ If they've caught up with us,” Harp growled, “ I feel sorry for the first seven.” He fondled his harpoon.

Dodge had pulled out a repeater harpoon and Harp had told him how to use it. There were twenty-five sharp slivers of stainless steel with hollow poison heads. They waited whilst the knocking was repeated. Through the port they caught a glimpse of rapidly finning legs, an arm with bracelets along it,

a tapering-fingered hand grasping a repeater harpoon. A face pressed against the transparent plastic. A face with green hair and wide eyes, curved, impudent mouth and even pale-blue teeth. Dodge flung his headlight on ; the beam showed momentarily in a patch of plankton and the face outside brightened into its true colours. Fair hair, crisp white teeth and smiling red lips.

She knocked again, the recognised signal for 'Open up !'

"Okay," said Dodge. "Let her in."

Two small bodies flashed in, began gesticulating, forming words, cavorting about. "Give her the amplifier," said Dodge. He didn't tell her that it had just been taken from a manfish ripped apart by barracuda, although, oddly enough, he felt the news would not have inconvenienced her. She looked ruggedly independent, like the youngster with her.

When the throat mike and amplifier were adjusted, she said : "I'm Pawnee. This is my brother Cuth. That's short for Cuthbert"—she avoided a violent kick from her brother's flipper—"and he hates the name. Welcome to Neptunia."

"If you're welcoming us to the sea," Dodge said harshly, "that's superfluous. What is Neptunia? Who are you?"

She laughed unselfconsciously. "Neptunia is rather corny, I suppose, but when Gramps and his gang founded it it must have sounded very grand. And they had a struggle to keep it going at all in the early years."

Bit by bit, interspersed by violent altercations carried on between Pawnee and Cuth in rapid, bewildering sign language the story came out. It was essentially a simple story, an inevitable one, given the set-up of the slave labour on underwater farms and the ease of life in the oceans to people who knew how to cope with the alien environment.

"Only it isn't an alien environment at all," said Pawnee, shaking her head so that the strands of her fair hair waved like undersea fronds. "If you know your way around it's a lot more comfortable than trying to live in 'cities.' Whatever they are. And fancy trying to fly upright on your flippers and move by putting one in front of the other and falling on it!" She and Cuth giggled.

"I'd like a quick walk through the Strand into Trafalgar Square right now," Dodge said harshly. The brother and sister regarded him quickly, then their hands blurred in speech. Pawnee said, shyly : "You want to leave the sea?"

"Leave it? I'd like to boil the lot away!"

Her gasp of horror sobered Dodge. Quite illogically, he felt guilty, as though he had just said something unforgivable. He flicked a flipper up and began to massage his calf where it still felt numb. So he might be in the wrong; but he couldn't apologise. It was difficult enough trying to keep a perspective on life down here under the water without telling lies about how much he liked it. He yearned, abruptly and tearingly, for the clean sweep of the stars.

Neptunia, they discovered, was a drowned ocean peak. Within its rocky crevices and recesses and on its multiplicity of terraces extending downward into utter blackness lived a large and continually shifting population. Originating when a group of escaped slaves had clung fainting to it in the midst of the ocean, it had grown, from their need to live, into a proliferating colony of active and independent vitality. Running under a vague and ill-defined form of anarchy, with a few of the elder men putting in an odd word or two of advice, it had formed the lode-stone to which all escaped menfish were ultimately drawn. Most reached it by the same method that had brought Dodge and Harp, the strong, mellow sweep of the ocean currents. In those currents, too, came all manner of debris, wrecks, food and flotsam and jetsam. The culture was not poor.

"And you say you were born here?" asked Dodge, when they at last stood on the rocky jetty, ninety feet below the surface. Old-fashioned xenon arc-lamps blazed down, their undersea river turbines barely able to generate enough power to force light from the tungsten electrodes through ten feet of water. Lower down, said Pawnee, there were more modern lamps. She turned her head, her hair rising like the sweep of an anemone.

"Of course we were born here. Birth under the sea is quite the norm—sharks are ovoviviparous, aren't they? And rays and sword-tails? And sea water is probably, being like blood, a better place to have a child in than air—"

"All right," said Dodge, failing to smile. "But Lamarckism doesn't apply to sexually reproducing animals. How come you were born into a water-breathing world, when a million years of evolution have fitted you to breathe air?"

"Silly. As soon as young are born they are placed in air-spaces, and operated on by waldoes manipulated by some of the best surgeons in the sea. It's a process that follows naturally, and then the babies are given back to their mothers."

"Hum," said Dodge intelligently.

XV

They finned through to a chamber where Pawnee's father greeted them. Escaped slaves these people might have been, living perenially in the sea ; but they had a vitality, an aliveness, that had been completely missing from Dodge's experience since he had first ventured underwater. With something of a shock he realised that he hadn't been above the surface since first going through the airlock in the Blue Deep Hotel with Elise. That jolted his memory.

"We came on a current here—you probably know it very well. We're rather anxious to find our way back to the Bishop Wilkins farm. Can you help us?"

"You tell them, Pops," said Pawnee, doubtfully.

"It isn't easy. There are any number of different streams converging south of here, flowing up towards the north. Gulf Stream material. The thing is, there is a lot of unrest in the sea. Comings and goings. Messages have come in that the fish are in turmoil. Clearing out. Masses of barracuda have been sighted—"

"You don't have to tell us, Pop," said Harp. He explained. "But we have to try to get back."

"I'll talk it over with some of the others. Of course, we'll try to help ; but we are without so-called law and order here. If you can't pay for help, well—it may be a little difficult."

"We've got the sub we came in," Dodge said hotly. "Under your rules I suppose that's ours, now? Well, just give us the directions and a little time to refit, and we'll be off."

Cuth, floating slowly down from the ceiling, said : "How do we know you're not blasted farm spies?"

That, like a douche of fresh water, put everything in a new perspective. Cuth hung there, moving his flippers lightly, watching them.

Surprisingly enough, as Dodge was spluttering out some garbled denial, Pop said : "I don't think they are, son. I've told you I don't know how many times that the farms know about us ; they leave us alone now, the cost of any expedition against us would be prohibitive."

"Now," said Pawnee. "What about later?"

The voices were muffled, thick but clearly audible, and Dodge and Harp disconnected their amplifiers. They were near the surface, and thought of that quickened Dodge's pulse. A bluey-grey blur like a yo-yo shot across the chamber three feet off the

floor. It halted with a swirl of arms, hunched up, and dropped down on Pawnee's shoulder. Two globular eyes regarded Dodge impassively.

Involuntarily, he recoiled. An octopus ! Pawnee put up a hand and pulled a tentacle, then tut-tutted, and carefully re-adjusted a bright scarlet ribbon—orangey under the insufficient lighting—tied in a neat bow around the upper section of tentacle. The octopus stretched its legs languorously. It was a good four feet across.

"Some pet," Dodge said.

In his ears always, now, was that singing undercurrent of tantalising sound which defied recognition. It rose and fell, altering with events, enigmatic, infuriating.

Over a magnificent meal, matters were thrashed out. Pop felt secure in Neptunia. He knew there were other outlaw nests in the seas, it was an inevitable corollary of any unstable culture like slave-states. The barracuda, when Pop had been told of the electrode, presented a baffling mystery. No-one thought that any Bishop Wilkins farm would be maniacal enough to employ such a drastic method of raiding rival concerns. Dodge considered this, chewing a fishbone, and was forced to agree. From the little he had seen of the underwater realm, he knew that profits and food production should go hand in hand ; destroying a rival didn't help you much. His patents were still good for his land and sea areas, and you wanted live menfish as slaves, not bloating—if menfish did bloat—corpses.

But Pop was adamant that the other outlaw nests wouldn't think of employing such a barbaric method of warfare ; Neptunia wouldn't—so why should they ? Dodge wished he could be so sure. Anyway, Pop had pointed out, Neptunia was the nearest slave refuge in these seas, wasn't it ? So why should anyone else come bursting in poaching their sea ?

Sometime during the meal, Harp said : "Don't you want to leave here ? Get back to civilisation ?"

The answer was painfully obvious.

"Why should we ?" Cuth said indifferently. "We like it here. Freedom, plenty of fun, a spot of work now and again, sport—you should have seen that Marlin I tagged the other day !"

"I should have thought you'd have hated your parents who took away from you your birthright. To live on the land. To see the stars—"

"But we do see them," Pawnee interjected. "On a dark night up near the surface, the stars are quite plain. And there's always a rainbow round the Moon."

"A rainbow round the Moon," said Dodge. He pushed his plate away, it skidded and rose into the water, gliding down surrounded by a squirming mass of brilliant, tiny fish. "I wonder if I'll ever see her again?"

"Come up tonight, Jerry," said Cuth. "Moon's due, judging by the tides—"

"I meant, son, whether I'd ever go up there again."

That precipitated an avalanche. Dodge spent most of the next few hours talking. His throat couldn't become dry; but his muscles ached along his neck. The kids were insatiable. Eventually, Pop interrupted and packed them off, full of garbled information about life on the Moon, Mars, Venus and Mercury. Dodge had just been getting around to the Jovian satellites. He flopped back, smiling.

"They'll make good spacemen yet," he said. "Could do with a few well-trained menfish on Venus."

"What are we going to do?" Harp said impatiently. He looked thoughtfully at Dodge. "And you never said you were in the Space Force, Jerry. Your pals will be looking for you."

Dodge sat up, finning to stop himself rising. "I'd never thought of that! Good Lord! You're right."

"So?"

"Well. We get the sub mended, find out the directions, and high-tail it back to the farm. Elise and Lura have just got to be all right." He reached for his harpoon. "After that we break for the surface—"

"Why not come back here? We don't have much choice, do we, Pop says that none of the slaves he's ever known have ever been able to breathe air again. They all talk about it, get promised the cure as a reward; but no-one ever actually gets the surgery. If there is any surgery."

Dodge didn't know whether to admire or dislike what he saw on Harp's face. He brushed a drifting cloud of plankton aside that had squeezed through the filters somehow, and tried to make up his mind. Harp knew what he was giving up; the convincing argument was that they couldn't live on the surface again. They must stay in the depths for the rest of their lives. Life here was just about bearable, he supposed. Hunting for food—no-one need ever starve. The ever-flowing spring of

fresh water within the atoll took care of drink. Tinkering with bits of wreck. Raising kids.

A life!

He narrowed his eyes on Harp. Harp looked uncomfortable.

"So you'd bring Lura here, have the surgeons operate, turn her into a girlfish, a mermaid, just for your sake?"

"No! Not my sake. We got along well in the sub-tow balloon. I love her, Jerry, crazy though that may be. She'd come. If I asked her to, she'd come."

She would, too. Dodge knew that. It was something of the way he felt about Elise. But he hadn't the courage, or the faith, to ask her what Harp was prepared to ask Lura.

It was surprising the level of culture there could be under the sea. Music was playing nearly all the time in various parts of Neptunia. Painting; waterproof crayons and other implements, concreted undersea terra-cotta. Drama. The live theatre and ballet took on a wonder and splendour undreamed of in the upper world of gravity. Ballet—free from the chains of gravity! Dodge and Harp mumbled all through it, repairing their sub. They were both itching to be away. The busy life of the atoll passed them by.

On the day, Dodge said: "We're on our way back to the farm, Harp. Let's hope we succeed. If we do—there may be the parting of the ways for us."

Accompanied for a short distance by waving mermaids and menfish, the sub drove on south towards their destiny.

"You've withheld too many damn secrets from the public already, Henderson," snapped Toxter. His broad face and cigar-clamping jaws assumed their best cartoonist position. Above him the twin jets, fed by the atomic motors, screamed a diminuendo chorus, thrusting the three-decker catamaran directly into the eye of the wind. The sails lay furled along the yards like neat white sausages fresh from the machine. Sparkling white-caps spilt froth on the waves.

"All right, so there have been things better for the public not to know," Henderson said nervily. His face showed the ravages of a nervous disposition in times of stress. "We announced these people in the Juliana Trench quickly enough."

"Only because you were scared."

Simon Hardy pushed his right hand down over his white hair, smoothing it. He said: "Well, this doesn't get us any farther,

gentlemen. Ferenc here is, no doubt, edified by this high-level discussion."

That quietened them. A gull shrieked past, wings stiff. Its beady eye fastened on the barracuda lying limp on the catamaran's upper deck. Captain Pinhorn stood a little to one side, hoping for a lead from Toxter, a little fogged by the swiftness of events. Electronics experts had looked at the electrode, made a few simple remarks, and gone. Now an ichthyologist was dissecting the cuda's brain. Pinhorn listened whilst the wrangle went on and the cat danced over the waves under the grateful sun.

"So you've actually been able to make men breathe under the sea," said Toxter heavily.

"They've been doing that since the first man stuck a reed in his mouth and went under six inches," said Werner, testily and uncharacteristically. Everyone was edgy. The ten-jet bomber had been flown on a trial run, and the dummy H-bomb had struck within six hundred yards of the target. The actions to follow in a few days were in everyone's mind. Tempers flared.

"You know what I mean," Toxter took the cigar from his mouth and stabbed with it. "Operating on men, tearing slits under their arms, fouling up their metabolism—"

"Oh, stow it, Toxter!" Hardy stalked away across the heaving deck, swung on a heel and said: "The surgical part is child's play now. U.O.P. have been doing it for years—just as you kept secret your work on cosmic rays. We know." He smiled briefly. "But the Wilkins Corps got hold of it. Unscrupulous surgeons mass-produced menfish—quick, fumbling jobs where the minimum of care was taken. Most of the poor devils can't breathe air any more. It all ties up with the system, I suppose. But the world was starving, men were clamouring for the pretty baubles in the sky—and their empty bellies had to be filled."

"And so we of Ocean produced the food," Henderson went on deliberately. "So you could send men like Pinhorn here out to the stars. Now we want to clean up undersea a bit; put some of the results of a too-rapid expansion right. So we get a big help from you Space Force people!"

"Well," Toxter rumbled uncomfortably. "We're helping on this Juliana Trench thing."

"Dropping an H-bomb is a fine help."

"Well, what do you suggest we do—go down in a spaceship and shake their hands?"

"Alter that to a deepsea sub—and the answer is yes!"

"Oh—it's preposterous! They're dangerous!"

Pinhorn moved to let the ichthyologist up. Over his shoulder he saw the electronics men coming back at a gallop. Excitement caught the blood in his veins, making them throb.

"Pain centre, as we suspected," said the ichthyologist.

"This electrode and battery," panted out the first electronics man, holding the needle out on his palm. "We've never come across anything like it before. It's a minute granule, yet to operate at all it had to develop a potential better than anything we've got of comparable size."

In the silence the hissing of the jets mounted. A porpoise leaped across the starboard bow and vanished under the port stem. Wind ruffled their hair.

Henderson said: "So the aliens turned our own fish on us. Poetic justice."

XVI

The two spiracles jutted from the sand, the valves within slowly opening and closing as the giant ray breathed. Around it, extending for many yards, the coral fans covered low walls and swept upwards in madreporic formations to the seamount's crest. Silver reflections of the surface chased across the bottom in an ever-changing pattern. Tiny fish, red, green, blue, scarlet, darted everywhere. Seaweeds trailed, ripe pods hanging from undulating fronds, Eel grass, looking like long reeds, covered irregular patches. A blue crab scuttled, raising a fine white cloud of sand.

As though an invisible gong had been struck, all the fishes turned. They poised, and then the sea was empty. Two fast, dark shapes, menacing and full of danger, swept across the ray, not seeing him, rose quickly upwards with lithe, powerful beats of fins. The King of the Sea was on the prowl. The little fish had learnt to stay clear of him, here, where there were no nets and corrals, no electric currents to turn them into road-traffic. This was the open range, up near the surface, perched on a narrow ledge of coral around a partially submerged atoll, too small—yet—for human cultivation.

One of the dark, terrible shapes made a sound.

"That's as far as we go, Jerry. They never used this section. Too small and too much trouble to work it."

Dodge halted his upward rush, finned more slowly to float at Harp's side. "So they're not here. No-one is here. The whole area stripped, wiped out, gone." He beat a fist into the other hand. "Do you suppose—"

"We don't know. The girls weren't alone. There were plenty of other people about—men, I mean, not menfish. Maybe they got them into a balloon. Be safe in there from the cudas."

"I'm hoping you're right."

Harp rolled over on his back, stared up.

"We'll just have to go back to Neptunia and hope Pop will give us another lead. They've got radio there. We'll have to listen to the news broadcasts."

"You crazy? Nothing of all this gets on the air."

"This is too big to be hushed up. If this is internal warfare between Wilkins Corporations—well—"

"I hate to admit it; but I think you're right." Harp was still staring upwards at the silvery-blue dazzle. "Surface is up there. Want to take a look?"

Dodge answered by jackknifing upwards. Harp joined him. They beat upwards with quick, anticipatory fins.

The colours of the fishes about them should have warned them. Even though these fish darted away, quite unlike the more measured retreat of the fish with which they were acquainted they had seen the brilliance of scale and fin. Of course—they couldn't check the pressure, their internal organs perfectly compensated for that. They rocketted upwards like two surfacing porpoises.

And, like porpoises, they came out of the sea, turned over, and sloshed back. That one quick glimpse had told them nothing. Cautiously, Dodge thrust his head up.

He began to swim. Sensations grappled his brain. Light. A searing blaze of light. Nothing in focus, all distorted. Heat. Dryness. Terrible, burning dryness. Scorching his mouth and throat, crisping his tongue. He gurgled in a watery, horrible gasping. Couldn't breathe. Chest hurting. Constriction—he drew his head down into the sea, and felt coolness and comfort, liquid salving the abused tender skin. He gulped water into his lungs.

Harp was shaking his head from side to side, and a few bubbles drifted from his gills.

"I thought I was dying!"

"Me too."

There was nothing more to say. It was a supreme experience, this return to the world of light and air. They had once more put their heads into their natural habitat—and it had nearly killed them. They sank downwards, finning lightly, lost in thought. Above their heads, two long dark silhouettes, strapped together, passed in a swirling smother of foam from sharp prows.

A light, quick blow struck Dodge between the shoulder blades. Automatically, he twisted away, brushing with his hand. The midge-like parasite fish were always on the prowl, darting in to nip at one's gills and raise a fleck of blood. After a time they blended with all the other peculiarities of under ocean. This time the blow came again.

Dodge jackknifed, twisted, stared back.

A little six-inch fish with a bright blue body, gold banded and magnificent, glittering golden fins, fluttered about him, almost falling over itself. Dodge gaped.

"It can't be," he said hollowly. "Sally!" He started to chuckle. "If it isn't Sally, you little devil—then you must be her sister. Well, I'm damned."

Sally flicked around and rode his pressure wave as they plunged down. He might have lost the sunshine and air of the upper world, and the life before him be all the darker for that; but there was an irrational bubble of elation in him. Sally didn't mean all that, of course. But she was something in this hideous chaos by which he could seek to retain some semblance of sanity. Dodge, Harp—and Sally—plunged towards their sub.

He knew it was fatuous. He tried despairingly to sink his agony for Elise into a blind, unreasoning acceptance of this catatonic world of water. He tried—and knew he would never succeed.

Beneath him in the depths, as he clove headfirst through the water, a dark spreading shadow grew. Far larger than their sub, it rose, increasing in size, seeming to his heightened senses like the father ray of the beginning of the world, soaring up to engulf its prey.

Shockingly through the watery levels, a shout reached his ears: "Hey! You two! You're wanted!"

The radio said: "All preparations for dropping the bomb have now been finalised. Word from Dahlak Major only is now awaited before the plane takes off on the mission which will rid our planet of the extra-terrestrial menace."

Simon Hardy flicked the radio off and turned to Dahlak Major, sprawled in a formfit cane chair.

"Well?"

For a fraction of a second a silver-lace mantilla was flung against the sun over the cat's bows. Then the spray, glittering, flew across the decks. The jets had been switched off and the ship cut sweetly through the waves under her swelling press of sail. Now—there was no urgency. They had seen what they needed to over the farm ruined beneath the surface. A hot rage burned in them all. Already two other farms adjacent on the continental shelf, had been obliterated by stupendous numbers of barracuda. Over the face of the waters a fleet had assembled, ships of all shapes and tonnages, from heavy-duty deep-sea wreckers to bobbing, brightly shining speed-boats. News of another three farms destruction had just come through and the fleet had sped off there like the switching turn of a flock of birds. From the sky, a small flying-carpet dropped rapidly towards the catamaran. Hardy looked away from Dahlak Major, scarcely expecting a reply, knowing that U.N. was even more firmly set on its course of dropping the bomb on the Juliana Trench. It would sweep up the great trough like a flaming wind, channelled, destroying everything on the seafloor. He looked tiredly at the descending flying-carpet.

It hovered a few feet above the rolling decks, and a man descended a nylon ladder, his thin arms and legs working as though unaccustomed to gravity. When he reached the deck and turned to face Hardy, the old sea-veteran let out a roar of surprised greeting.

"Eli! You old bad-penny!" He ran forward right hand outstretched. "No reports from you, son, thought you had bought it along with the rest."

Eli clicked his plastic set of teeth, smiling. He was lean and starved looking, yet his salute was crisp.

"Reporting back, admiral. Plenty of evidence on the press-ganging—and some on the hi-jacking." Over drinks he elaborated on what had happened to him on his assignment to be taken up as a slave, then to escape and report back to U.O.P. He heard about the other agents who had not returned. He tightened his lips when told of the man who had returned—dying—from the Artful Dodger's farm. He was interrupted towards the end by Captain Pinhorn who had strolled up with Pierre Ferenc to see what the excitement was about.

Pinhorn said : " Hold it. You say two men and two girls escaped from a balloon you were hidden in when a U.O.P. patrol made a raid. You shot a guard to facilitate their escape—"

" Kept a little needle gun under my singlet—wore that all the time on account of I was an old man. Old ! Hah !" He didn't spit, but it would have fitted. " Yeah. Short, square guy, tough, and a big hunk of he-man hero—" he described him. And the girls. He wasn't old, wasn't Eli.

" That was Commander Dodge," said Pinhorn emphatically.

Into the babble of speculation following that, a second flying-carpet hovered and a second man—big, fat, domineering—descended to the heaving decks.

It was evident that Dahlak Major and Toxter wanted to ask questions ; but they all pivoted to regard Mr. Grosvenor walk towards them, giving the impression that he waddled. His big face was engorged and he breathed with a dry rasping.

Henderson bristled like a dog scenting a stranger.

" Glad you could come, Mr. Grosvenor," he said stiffly.

" I've spent a heck of a long time while down on Trident," began Grosvenor. " And now you haul me back from my farm just at this juncture. Whatever it is you want to see me about must be very important if it's more urgent than the mess down there."

" We have some questions," Henderson said smoothly. " Dahlak Major, as U.N. secretary, would like further information about the depredations before ordering the bomb—"

" Why wait !" Grosvenor coughed and touched a bloody handkerchief to his lips. " Drop the bomb, the biggest one you've got on those murdering monsters."

" There speaks the world," murmured Hardy.

The sun shone warmly. The waves made pleasant guitar sounds. A few gulls rode the wind with arched wings. It was strange to think of the terror and death and merciless ferocity prisoned beneath their keels down there in the blue silence of the depths. It was more than the difference between two worlds ; it was the difference between two conceptions of dream worlds.

" . . . fish for inhuman experiments," Dahlak Major was saying. " I don't think the council will view that with favour, Mr. Grosvenor."

" The U.O.P. do it, don't they ? They have fish to hunt down innocent men on the farms ! Ask them about sticking needles in fish's brains !"

"Sure we do, Grosvenor," said Hardy, controlling himself savagely. "But we operate on the pleasure principle, not the pain, as you do."

"Why not use porpoises and dolphins?" said Toxter vaguely. "I've always heard they are friendly to man."

Hardy laughed unpleasantly. "People have a friendly feeling towards them, you mean. It's because they're mammals; there is a feeling of affinity. Experiments have been tried to control them like we do dogs; there's been some success, but the techniques of broadcasting and directly-influenced brain areas leaped ahead so much that clumsy methods like that were soon outdated. Anyway, we need watchdogs that can stay beneath all the time, and don't have to keep taking time out to surface for some fresh air."

"The U.O.P. are nothing but a bunch of—" Grosvenor started to say; but Hardy cut him off with a quick jerk of his stump.

"Your surgery is terrible! Even *you* can't breathe air properly—look at you, suffering as though you were a fish! And we have reason to believe that you've been performing even worse jobs on your slaves—yes, *slaves*!"

"I don't understand," said Grosvenor puffily. "Slaves? What slaves? If you mean our indentured workers—"

"Look, man, if you can't stand it—go and put your head in a bucket of water. We can talk from there."

Grosvenor hesitated, his little eyes mean. Then he coughed again, staining his handkerchief, and that decided him. A sailor drew a bucket of water and Grosvenor thankfully thrust his head in and drew in deep breaths of water. He said, the sound hollow and booming: "God! I was on fire!"

Ferenc said aside to Pinhorn: "Trouble is the mucus-secreting cells of the lungs; these blundering slave-surgeons have to remove it to allow sea-water to pass, extra viscous, you see. But they don't bother to provide fresh replacements for when you breathe air—and the lungs harden. Grosvenor's only had half the job done on him. Hasn't even got an operculum."

"Now then, Grosvenor," said Hardy. "I know all about your slaves. When U.N. outlawed the economic man-trap system where a man was cajoled into the sea and then found everything so expensive that he could never buy himself out or his passage home—a sweet racket!—you were in such deep waters—hah!—that you and your like went ahead and took un-

willing workers, forced them to work, press-ganged them into menfish. If that isn't slavery, what is?"

A series of gurgles came from the bucket. Grosvenor hadn't expected such a direct attack, and Hardy ploughed on, condemning, branding, castigating.

Pinhorn stood looking on in amazement, seeing nothing ludicrous in the spectacle of a portly man carrying on a conversation with his head in a bucket of water. He was anxious to find out more about this undersea world; but Eli had just brought in the first clue to the whereabouts of Jerry Dodge. At last he had something to work on, however slender that might be.

Ferenc slipped away from his side in response to a call from a radioman. When he returned his face was eager. He said quickly to Pinhorn: "Things are shaping up!" And then, cutting across the conversation, to Hardy: "Excuse me, sir. Message just in from patrol eleven."

"Well?"

"They've picked up a sub-tow balloon about fifty miles south of here. Towing it to Trident. Full of slaves and workers and guards—the usual thing Eli was talking about. All from the Artful Dodger's farm, escaped when the barracuda attacked." He paused.

Hardy, slowly, said: "Very interesting, Pierre. And?"

Ferenc's faith in his chief was upheld. The old boy knew when there was more news. Ferenc said impressively: "A girl aboard called Miss Elise Tarrant. She and two Siamese friends wish to lay charges against Mr. Grosvenor for kidnapping, press-ganging, pressure to work, oh, all kinds of meaty charges. They want to throw the book."

Everybody was talking at once. Hardy, jubilantly: "At last! We've got him!" Pinhorn: "Where's Dodge?" Dahlak Major: "Most irregular." Grosvenor threw his head from the bucket with a scattering of shining drops, a wild look of fear touching his blunt features with the dawning realisation that his world was sinking. Pinhorn: "Where's Commander Dodge?"

Pinhorn went on saying that until everyone else stopped and looked at him. He took a deep breath. "Where is Commander Dodge, please?"

Ferenc shook his head. "No news. I asked. Miss Tarrant saw him once after their escape when Eli helped them—she didn't know that, of course. Just before the barracuda attacked." He paused and looked uncomfortably at Pinhorn. "He was a manfish."

"Oh, no!" Pinhorn was aghast. All he had heard about the butchering methods of the farms welled up in his mind. "You mean—he can't breathe air?" He didn't wait for an answer. He knew it. "On the Arthur Dodge farm, his own farm, inherited from his uncle, and fouled up by you, Grosvenor, you fat slug."

Pinhorn stepped forward and put his right fist in Grosvenor's mouth, jetting water from the gill slits, and then kicked the man-fish in the stomach. Grosvenor went down, unconscious. Ferenc leant over and shoved his limp head in the bucket of water. No-one said anything.

Then Eli said reflectively: "I think you're kinda doing the fat boy an injustice, son." He clicked his teeth. "I wasn't in the Artful Dodger's little mob when your pals escaped. It wasn't Grosvenor who press-ganged them in the first place. They must have been caught by him in a hi-jacking deal after they left that sub-tow balloon."

"Miss Tarrant would know that. Yet she is pressing charges."

Ferenc said: "I know Danny Agostini. Grosvenor's head chopper. He's hopped enough to do anything. Miss Tarrant said definitely that he had caught them in his sub—"

"What a situation," Hardy said, and whistled. "Young Dodge, hi-jacked by his own employees and turned into a man-fish by them. Well—we'd never have looked there for him. We'd have assumed the red-carpet was laid down."

Pinhorn said it for them all: "Where is he now?"

Dahlak Major rose from his cane formfit. His face expressed concern. He said: "This is all most irregular and also most disturbing. There have now been six Bishop Wilkins farms destroyed by deliberately maddened barracuda controlled by the aliens trespassing in our waters. And I am about to give the order for the H-bomb to be dropped." He clucked his tongue. "I sincerely hope that Commander Dodge is not near the Juliana Trench at the present time."

Silence. Then Hardy, knowing it was useless, attempted again to delay the dropping of the bomb. He was waving his arm about when a rating put his head out of the control cabin and shouted: "Got a strange ping, here, sir."

Hardy went back. Henderson followed him and Minister of Aquiculture Werner took over the job of wearing down Dahlak Major. They hadn't been very successful so far.

In the cabin Henderson said: "Where are we?"

Hardy, looking out the window at the rolling sea, grunted, and checked back on the echo-soundings. He stared at the bottom contours, and then said : " Over the Eastermost end of the Artful Dodger's range. Don't think they use it much. Grosvenor would know. If poor Dodge is finished—and those barracuda leave little hope—then I don't know who the farm belongs to. Where's this echo ? "

The Asdic showed a large ping on the screen. It was rising upwards rapidly from the depths. No-one recognised it. Two smaller pings were shown, quite near the surface.

Outside on the deck Pinhorn was viciously gripping the rail. He stared with unseeing eyes across the billows. Ferenc, beside him, could find nothing to say. He looked across the troubled surface, thinking of the cool blue depths, when he saw two fish burst from the water, flop over and go sliding back.

" Porpoises, how charming," said someone at his back.

Ferenc saw that sharp picture in his mind, the quick bright flash of pink, the shape—he shouted suddenly.

" They weren't porpoises ! Alert ! " And then he ripped his plastic flippers from their strap round his neck where all U.O.P. personnel carried their equipment when out of water, slid his feet in and took a short, splay-footed run to the rail and went over in a clean, cutting dive.

Dancing with impatience, fired by a feeling that something important was happening, Pinhorn struggled into a face-mask with attached spun-glass cylinders, one of the short-period masks, no time for the big ones now, and, down the ladder flopped over after Ferenc. Hardy ran from the cabin. Henderson followed. Dahlak Major, Toxter and Werner ran to the rail and stared into the concealing water. Tension screwed everyone's nerves.

Just two porpoises ? Or two dead men ? Or what ?

XVII

As that human shout penetrated the empty wastes of water, Dodge checked his plunge. Sally pirouetted, sweeping round in a tight circle to finish up again soaring on his dying pressure wave. Dodge floated, finning lightly. Harp went on, then jack-knifed and swept back. They all stared up.

A gleaming figure flew down towards them trailing a glistening line of air bubbles. There was the impression of immensely powerful fins, the almost physical impact of water being sliced

as though it were melted grease. Harp and Dodge slung their harpoons forward, tensing, ready for anything.

The shape resolved into a manfish. There was something about him that was strange to Dodge's eyes ; but in the immediate impact of wonder the dissimilarity between himself and this stranger eluded him. He looked tremendously powerful and completely at home beneath the waves.

Again the shout, a short-flung shock-wave of sound that drove far farther under water than any previous shouts Dodge had heard. He knew his own range was negligible by comparison. "Hey ! Want to talk to you !"

The stranger flew up to them, halted in a quick, casually easy flick of fins, and hung, staring at them. Dodge saw the broad shoulders, the easy rhythm of this manfish, and felt strangely humble, knew with deep conviction that this was a true manfish, against whom he was only a tiddler.

"Who are you ? Don't you know what's been going on ?"

Dodge knew what had been going on all right. But he certainly wasn't going to tell this newcomer, who was quite possibly one of the devils controlling the barracuda. Almost, he triggered his harpoon. Still, he might know about Elise . . .

Dodge saw Harp tense, then he pressed closer. Dodge started to say : "What's your business ?" when Harp let out a whoop that rolled away undersea.

"Pierre ! By all that's holy—Pierre !"

"Who the—Harp ! By the tentacles of daddy octopus himself—Harp !" Ferenc waved a hand in amazement. "I thought you were teaching maiden ladies how to embrace the strong male sea with breathing equipment ?"

"So I was. Until they decided I'd be better off working on the farm."

"Manfish ! How come ?"

"They thought I'd work better that way. It's a long story—"

"You—you were the square guy that Eli—" Ferenc was squeaking it all out, unable to put his words in proper order. "Then this is—this is the spaceman—you must be Commander Jeremy Dodge !"

Three extraordinary puzzled menfish stared at each other. Below them, rising like boiling milk in a saucepan, a spreading shadow exploded outwards with the rapidity of its ascent. Aboard the catamaran above, that huge shape, creating an outsize ping on the Asdic screen, had now claimed all attention after Pinhorn

had disappeared over the side. Captain Pinhorn, Space Force, flew down into the depths of Earth's blue sea and there made contact with Commander Jeremy Dodge, Space Force. It was a meeting more macabre than any meeting of those two on the explored planets and satellites of the solar system ever could have been.

"Jerry, you old space-hog. Found you at last!"

"Pin! What? The Space Force in trouble again?"

Above them the surface was like a cloud-riven silver sky over some alien, unworldly planet.

"You better come back with us, Jerry, right away. Admiral Hardy would like to hear what you have to say." Ferenc smiled. "We're going to build up such a case against Grosvenor that he'll never squirm out of it."

"Grosvenor?" said Dodge sharply. "He was the guy I was supposed to be meeting when Elise and I—" He stopped talking. Then, his words quite distinct in the clogging water: "Sorry, fellows. Can't go topside, for two reasons. Can't breathe air. Must find Miss Tarrant."

"But Miss Tarrant is being taken to Trident," Ferenc was saying excitedly, as Pinhorn tried to flap himself round and stay with the others. But his breathing gear and lack of fins made him an easy prey to the rising bubble of water being forced through the surrounding sea. He went racing away above, unable, as were the others, to fin hard and stay with the rising wash of water being driven from the huge black shape below.

Pinhorn was swept away. "Leave him," Ferenc shouted. "He'll be picked up. Below—"

"Killer whale?" asked Harp. They were all tensed; but no-one seemed frightened—yet.

"No," said Ferenc decisively. "I've seen *them*. Seen them nuzzle up to a damned fat Grey Whale, force the poor thing's mouth open and stick their heads in and start feeding on the beast's tongue. Very tasty morsel, that."

"What is it?" yelled Dodge.

Beneath them, now, the sea had turned from blue to black. The shape fanned out around them, like a huge ray, there was even a short tail, too. Riding the criss-crossing currents forced through the water, Sally stayed with Dodge as he stayed with the others, they were like midges dancing above a thermal up-draft over a huge beast's back in the tropical sun. But, inevitably, they couldn't stay there. As the water broke around them and

sluiced down over sleek flanks, they were sundered apart, spilled away in an undersea avalanche. Dodge saw his companions threshing water, saw them plucked from him as he, in turn, was sucked down and away on the other side.

He went over and over in the water, rolling around and down the monstrous body.

And as he went, thrust by tons of water through more water, he saw in the body creating such undersea turbulence, rows of portholes, neat, mechanically perfect fins, and rearward pointing venturis.

He refused to believe it was a spaceship.

Not because it was like no spaceship he had ever seen—he, like all spacemen was perpetually ready for the day when ‘They’ contacted us from outside the system—no, the reason he knew it was no spaceship was something he might not have bothered about prior to his underwater career. Any spaceship designed to withstand one atmosphere within will be precious little use when subjected to ten atmospheres of external pressure. It could only be a submarine. But Dodge did not like the remembered words of Pierre—Harp’s pal—when they’d been swept apart.

“What is it?” Dodge had said. And Pierre had replied sombrely: “I’m very much afraid I know what it is. And I don’t like what I know.” And then the monster had thrust its bulk between them and now Dodge was sorting himself out beneath the swelling flanks, with Sally gyrating as a golden mote in the corner of his eye, and wondering if this was the end of the world.

Once before there had been the opportunity of escape, leaving friends to their fate. This time, although still with the powerful conviction that Pierre was as tough underwater as anyone Dodge had ever met there, he again could not make himself fly off and leave them.

An oval of yellow light sprang into being on the metal flank. Dodge expected anything. Mermen—in the traditional sense, with tails and flukes, not the familiar menfish—a swarm of crazed barracuda, alien beings from another star, a grim posse of the Under Ocean Patrol, even Captain Kitser come to take into custody his errant soldier.

He was totally unprepared for the voice which said: “Attention Earthmen. We wish to be friends. Repeating. We wish to be friends. Please do not be afraid. Repeating. Please do not be afraid.”

The insane thought hit Dodge—"Suppose I didn't speak English?"

He tried to say something, and his brain iced up. He deliberately threw his mind back to Space Force procedure, in the little blue book that you were passed out on oral examination. "Procedures to be adopted on encountering extra-terrestrial intelligence."

But—there had never been foreseen the possibility that an officer of the Space Force would first contact alien intelligences under the seas of his parent Earth.

The situation just wasn't in the book.

It was a giant cart-before-horse arrangement.

Dodge shouted: "Yes. We want to be friends too. Who are you? Where are you from?" And then remembered. Questions and answers on a one-for-one basis. Treat as equals—equals, hell! That damn great sub could knock him out of the water like a squashed sea-urchin.

A dark silhouette appeared in the yellow oval of radiance flooding from the hatch.

"There has been a grave mistake." The voice boomed out, magnified, carrying clearly. Dodge wondered if Harp and his pal Pierre could hear it wherever they were on the other side of the sub. "Are you a person in authority? If not, can you contact someone in authority? Repeating. Can you contact someone in authority?"

"With all this repeating lark, you get the impression they're not sure we can hear them." The voice was Harp's coming from the blankness of the shadow beneath the sub. Dodge knew that in that shadow he would be able to see clearly, all the microscopic flecks in the water robbed of the scintillant illumination which made them visible as a fog in the water. He watched as Harp and the tough manfish flew out of that region of darkness.

"Yes. I am a person of authority," he shouted as loudly as he could, trying to control his amplifier to give a clear bell-like sound. "And we can contact others of the government of the Earth. How well do you speak English?"

"Well enough, as you must appreciate." The shape outlined in the yellow hatch had not moved. What might have been a head tilted; Dodge knew it was peering down at the two new arrivals.

"My friends," Dodge said quickly. He felt unsure, emotionally, abysmally unsure. What should he do at this critical juncture in the history of the Earth? A wrong word, a mistaken

meaning, the slightest slip, could mean a protracted period of turmoil and confusion, possibly even war. Interstellar war might be, thankfully, an impossibility ; but if these aliens—and now he knew they were aliens !—were so well at home in Earth's seas that the fight would all take place here, in Earth's own oceans.

And that must not be allowed to happen.

The alien said : " Your government intend to drop a thermo-nuclear bomb onto our city. We would discuss the situation with them before action is taken. We can explain everything. Repeating. We can explain everything."

Dodge wasn't quite sure he knew what the alien was talking about. Into that thought came Pierre's strong voice.

" We know you interfered with Earthly fish of a particularly vicious character ; we know you set the barracuda on our peaceful farms. Is that an act of friendship ? "

Dodge didn't know whether to shout at Pierre to shut up, to let the spaceman do the talking—or to allow horror and revulsion at the aliens' crime to overcome him. Certainly, if this were true, it made nonsense of the aliens' claims to friendship. He began to flipper quietly away.

" Hold it, Dodge ! " That was Ferenc.

He flew rapidly towards the oval light. " I am Commander Pierre Ferenc of Earth's Under Ocean Patrol. I can assure you of a hearing with the government and with the chiefs of Under Ocean." Harp flew stolidly at his shoulder, silent, watchful, his hands lightly grasping his harpoon.

" They set the barracuda on us ! " Dodge yelled. He was thinking of Elise. He had a claustrophobic memory of diving into that sub, with half his flipper chewed off by the hideous jaws of a cuda, of the stifling fear there in that darkness. Of the dead engineer. Of the ripped-up sharks, the dead menfish—perhaps one had been Knut. Even Captain Kitser and his " All right ! " attained a measure of worth in his mind. No man should die under the maddened fangs of insane barracuda. He changed direction, flew in towards the two menfish at the hatch. The alien still had not moved. It was a ticklish moment.

This Ferenc was a fast thinker. He said, quickly, softly : " I told you, Dodge, Miss Tarrant is safe."

" Yeah." The information hadn't penetrated before. Dodge marvelled. He'd been developing a one track mind.

" What is the trouble ? " That was the alien. There was nothing in the voice ; an alien contriving to speak an unfamiliar

language, through the stifling medium of water, it would have been a miracle if there had been recognisable overtones in the voice. Dodge flew up to Ferenc, floated.

Carefully, Dodge said : " There is no trouble."

He was still unsure just how much initiative he should allow Ferenc, for all that the manfish was an U.O.P. officer and therefore likely to be completely familiar with undersea matters. This was Space Force business. He moved in closer. Show no fear, said the book. Be politely aggressive. From nowhere came the wonder whether any " Procedures for Dealing With Alien Cultures " had ever been scheduled for the Under Ocean forces. It was most unlikely.

And with that thought, too, came the sickening realisation that so far all the initiative had been with the alien standing—if it was standing—in the hatch. The Earthmen had been behaving as though they were dumb idiots. And those barracuda—

" Why did you turn those killer fish loose on helpless farms ? There were many deaths of Earth people. Much damage was done. How can we trust you ? "

" You have to trust us. Repeating. You have to trust us." Was there a hint of desperation in the voice ?

" Why ? "

Before any answer to that could be given, Dodge saw Harp and Ferenc drop alarmingly, as though they were in a bottomless elevator shaft. They retained their posture in the water ; but went straight down. Dodge whirled to stare at the alien. He had not moved.

A cry came from the plummeting men. Ferenc.

" Away, fast, Harp ! " The two menfish struck out powerfully with hands and flippers. " Fresh water ! Danger ! "

XVIII

Dodge knew, then. A stream of fresh water flowing up from some fissure in the seamount away in the blueness, a common phenomena of the ocean floor, always a lurking menace to the menfish. Buoyancy was immediately affected. But, most serious, fresh water is injurious to the lungs. And it had had to happen now ; just as they were attempting to negotiate with aliens—the aliens would believe they had to deal with a weak and puny race.

Well—wasn't that true ?

Ferenc and Harp, breathing and blowing salt water gustily, flew up to rejoin him. The alien now chose to make his answer to Dodge's blunt query.

His body rose ; he was balancing daintily upon two large and powerful flippers. The body was a glistening black, caught in some hidden orange reflection from the lock at his rear, gleaming in dramatic relief. A single hand came up—a hand like a human hand.

"You must trust us as we trust you. We have read your radio messages and the signals transmitted by your primitive ultra-sonic water equipment. Your decision to destroy us with a thermonuclear weapon filled us with horror. We have lived long and peacefully in your oceans, we had never harmed you—"

"What about that sub you dragged down?" Ferenc said.

"We were intrigued. We felt that you were visiting us. We drew your vessel towards our city and it crumpled up. We were deeply shocked. We did not fully understand at that time. Do you understand?"

Ferenc flipped in slowly to float beside Dodge.

"I think so." The U.O.P. man was quite obviously trying to forget something. "We live at the surface of the seas. You live at the depths. So it was natural that you should not realise our sub would be crushed by the pressure." He lifted his head. "I lost friends on those vessels. Good friends."

"You have our fullest sympathy." The voice was completely emotionless, metallic, artificially reproduced. And yet Dodge, for one, believed what it said.

Ferenc said, in a quick aside to Dodge : "The crew of the crushed sub weren't menfish. I'm undecided whether to let on that we aren't exactly representative of our race."

"Let things take their own course." Dodge rolled his harpoon round onto his shoulder, out of the way. "Let things take their own sweet way." He managed not to add that he had received training to cope with this situation. He had a nasty suspicion that all the training in the world—or off or under it—was negligible compared with two seconds' conversation with a live alien.

The alien had lifted himself another six inches and now orange light haloed his head, showing in bold relief the bulging, human-type cranium.

"We know your government is divided on the use of the thermonuclear bomb. We know that a—" the alien paused,

then went on with assurance "—an Admiral Simon Hardy is opposed to its use. We obtained a bearing on his transmission source, and rose to attempt to make contact. We, too, are divided in our counsels. The parties who launched the attack of the fish upon your farms have been placed under protective custody. For myself and my friends, we wish to apologise deeply, most sincerely, for the damage, and we will make what reparations we can."

Dodge didn't say "Pshaw !" But he felt like it. This whole situation didn't smell right. There was a phoney ring to it—or was he still out of focus in his thinking since his experiences beneath the sea? Certainly, he didn't seem to have the same lightning black-and-white summation that he had before; he found—to his perplexed annoyance—that he wanted to believe what the alien said. He was tired of fighting and struggle and the continuous anxiety of personal safety—and the tearing fears for Elise. He wanted an armchair and a comfortable pair of slippers.

Feeling like that, floating silently in the deep-blue depths, he heard Ferenc in busy communion with an ultra-sound set on his chest. Ferenc nodded vehemently once or twice as he spoke, driving home a point. Eventually he looked up at the alien. He moved his flippers automatically to keep station on the hatch.

"I have been in communication with Admiral Hardy. He is most anxious to meet you. We have managed to delay the bomb dropping by one hour. No longer—they do not wish to delay it beyond the fuel-capacity of the bomber, and they're not certain enough to let the bomber return to base. So you'll have to convince us inside"—he glanced at his waterproof watch—"five hours. Maximum. Can do?"

The alien's body dropped onto the hatch flooring. His voice, still as strong through the amplifier, had a gasping sound to it. "Yes. We understand. Thank you."

Dodge, looking and listening and wondering, saw that the alien's strangely human head was human only in the cranial structure; the body was like a porpoise's, with the snout much foreshortened and that *sapien* sweep of forehead above, oddly disconcerting, was the only truly human feature—apart from the hands—of the alien's physiology. But then, brain and hands, weren't they the hallmarks of intelligence? And in the sea an upright posture was unnecessary, a positive hindrance.

The three Earthmen moved in closer. The alien's arms were not truly human arms ; but quite apart from the hands, they were true arms in every sense, very far removed from the lobe-fins of the crossopterygians. On one wrist Dodge caught the dull gleam of a wristlet. Huge twin eyes regarded them—then, in the instant that Dodge saw that those eyes were not eyes at all but goggles faced with dark glass-like material, he saw also that the skin was not skin but some black material forming a pressure suit—a suit that bulged shiningly from internal forces.

Of course—the alien was fitted with his equivalent of a space suit ; he'd need it, too, up here where the pressure was only a hundred pounds to the square inch. Down there in the abyss, where the pressure cracked on tons per square inch, he would be at home. The swift rise of the alien craft showed that it was pressurised—the aliens would otherwise have bloated like those deep-sea fish cruelly dragged from the depths in nets. The alien lumpily moved back. He gestured.

"I have been in communication also," he said. "My leader in our city would talk with an Earthman, try to convince you that we mean you no harm."

"That's all right," Ferenc said. "We'd be happy to talk to him. My chief can hold off five hours, after that, if your story doesn't hold together—"

"We have no time to lose, then." The alien shuffled backwards now, and distinctly over the amplifier came the laboured muffled gasps of his breathing. He again gestured. Dodge realised that he was indicating they should step on the hatch coaming.

Dodge realised suddenly that the Earth men had been behaving like a group of boys warily watching a wounded snake, aware that it could not harm them unless they approached it. Without fully being aware of all his motives, he flicked his fins and dived forward to sail up and drop neatly onto the hatch flooring. The alien was no more than three feet away.

Before Dodge could say anything, the alien spoke.

"Good. I am glad you decided to trust us. Now we must act quickly if we are to see our leader in the city and return here before five of your hours are up."

All Dodge could think of to say was : "Down there ?"

If, when Dodge had first penetrated into the undersea mystery of the planet, he had thought he was entering a new world, then the experience of diving twenty-five thousand feet showed him

two fresh and quite distinct worlds. They lay under the two worlds of Earth with which he was familiar, forming the lower slices of a planetary sandwich.

The alien ship's water-lock took the three Terrans in and, gradually and with much foreboding, the pressure was built up. Apart from singing in the ears—distinct from that other singing which Dodge now realised for the first time had ceased since it began back on the farm—the symptoms of a deep dive were simply not noticeable. Harp had said, uneasily: "The blood gets too viscid under pressure. Heart can't pump it."

Ferenc, with forced cheerfulness, pooh-poohed that idea. "Blood's very like sea-water," he said confidently. "Almost impossible to compress—only a negligible fraction. Your heart'll be all right, Harp."

And so it was.

Standing now inside the alien sub, sinking down through the unrelieved blackness of the ocean, the three Earthmen stared out at sights reserved exclusively for deep divers and nightmares. Lights. Lights everywhere. The utter blackness vanished and re-appeared like distorting scenery in a masque—now it covered the eyes like mourner's crepe; now it disappeared as phosphorescent lights exploded all around. Shrimps blew up, giving off clouds of pinkish light, seeking to hide themselves from the jaws of darting agile fish. Barbels and tendrils trailed, electric trip-wires for unwary fish. Small fish lit up like ocean liners, with rows of portholes and red and green navigation lights, passed and repassed the port. One fish Dodge saw with a skinless lower jaw. It hurled itself forward, the jaws opened, then the lower jaw flung itself forward, jolted by a huge naked muscle, trapped a squirming fish larger than the carnivore, and then hinged out and back so that the fish seemed to have acted like a bucket-grab, scooping up its prey. It took some time for Dodge to get over that.

Far above their heads the long rollers marched endlessly towards the east, the sun shining from their foam-flecked flanks, spindrift hurtling merrily through the breeze.

Down in the depths all was quietness and stealth.

Until they passed the giant squids. Dodge caught the briefest glimpse of a sounding whale struggling with a squid, and then the sub was plunging on, down into blackness like a vertigo, sliding through the still water, a giant shadow in darkness.

XIX

It was like seeing a city in haloed illumination battling creeping arms of fog. Lights glowed everywhere, on rounded domes, on tall spires, pinnacles of rock that towered and leaned without fear of gravity, over vast silent areas of neat round igloo-type dwellings. Dodge, looking from the port, tried to conjure up what it was that the city reminded him of—and knew that in all his experience on the alien worlds of space he had never encountered anything so eerie, so haunting, as this city drowned beneath the oceans of Earth.

They were conducted through a wide central plaza-like area, and Dodge found a strange familiarity with the concept of building in three dimensions without need for flyovers and escalators and the dry-neck paraphernalia for ascending and descending vertically. All about them the porpoise-like inhabitants flew and gambolled and formed an undulating line, a procession that swept them onto the central block of brilliance where dwelt the alien they had come to see. He was old. Personally old. His skin greyed in puckered patches, quite unlike the healthy blue-black sheen of the alien's skin. His eyes, huge, fathomless, regarded them with a depth of feeling that Dodge found disconcerting. The alien who had brought them said: "This is the Prime Minister. That is the nearest term I can find in your language to explain his position and function."

There was nothing odd, now in meeting and talking to an alien beneath your own seas. This alien had that radiating aura of confidence that comes only to those who are born to nobility, who have achieved near-divine status in their own lifetime—or who are dying. Dodge thought that perhaps this alien had all those three attributes.

The conversation was short. The extra-terrestrials had no desire for war; they wished merely to live and let live. The party who had performed the operations on the barracuda had been condemned, their actions outraging all public opinion. They were on their way back to their parent planet, there to stand trial. As the Prime Minister said: "We are not an old race; not as old as yours, Earthmen. We dwell beneath the seas of a planet light years away, and the concept of space and stars was something beyond our comprehension. How would anyone living on the surface know of the outer reaches, with this great mass of water and darkness pressing upon him? To us, you live tenuously supported high above the surface, on the

rocky peaks of mountain ranges. What you find to breathe up there was the source of many academic discussions. But I digress. We met and were befriended by a race of people who had conquered space. They gave us spaceships, taught us the rudiments of celestial navigation, opened our eyes to wonders we had never believed possible. Because ours is a young race we are spreading, seeking new lands, for ever restless and roaming."

There was silence, the thick words falling into pools of shadowy vacuum. Dodge contrasted the virility of a young race with this old alien's personal future. He found a great pity in him. Geriatrics ought, perhaps, to receive far more conscious effort of discovery . . .

The alien was speaking again. "We would live in your oceans, here on the floor. We cannot live on the mountain peaks, we do not wish to do so. I am aware that you have two different levels of civilisation; one on the lower borders of the upper shelves, where my people might be able to live, continually gasping for oxygen. Above that line—there is nothing for us."

Ferenc said: "We cannot agree to anything. We can only take your proposals back. But I can tell you that my government will not concede the continental shelves. They produce food—we must work them. We would have to fight first."

The alien waved a weak hand. "I know. We do not want them. I have seen something of your system there, the brutality, the slavery, the surgery on fishes. Yet you have no hesitation in blaming our wayward sons for their surgery."

Alarmed, Dodge said quickly: "I do not anticipate great opposition to the plan. We cannot give you guarantees; but we can assure you of our whole-hearted support." He was thinking of the spaceships that could cross the interstellar void—and the aliens who had given those ships away. This meeting could have far-reaching repercussions away from the seas of Earth, out there in the frosty glare of space. Space . . .

He dragged his attention back and caught Ferenc saying something about urgency to return, five hours, decompression. The three Terrans, their minds whirling, turned to return to the submarine, which they now knew to be a spaceship as well. The aliens didn't go down—they were down, at the floor of the ocean, and anywhere else was *up*.

The alien Prime Minister nodded—a curiously human gesture. Dodge noticed for the first time, as the thin arms were raised

and the loose garment fell back, the round shiny areas of skin, almost like scar-tissue, along the alien's ribs. Ferenc, noticing Dodge's interest, nudged him.

"Farewell," the Prime Minister said. "I shall not see you again."

Inside the submarine spaceship, Dodge felt humbled, a catch in his throat, at the grave acceptance of the Prime Minister. He vowed to make events turn out right for the aliens as well as for humanity.

"Saw you looking at those scar-tissues discs," said Ferenc. "My guess is they are atrophied light organs. These folk probably used to light up splendidly before they developed."

"Like our cocyx, left over from tree-swinging," put in Harp.

"Yes. But the most interesting thing was given to me by our guide's contemptuous remark about our clumsy ultra-sonic equipment. Of course—these aliens see by ultra-sonics. Their eyes for visual light are all but useless. Did you notice the way they could stare right at a light without any pupil contraction? That lump over their forehead must contain ultra-sonic glands something like a bat's."

Dodge said: "They had to be given space travel. Radio and radar and T.V. would have been beyond them. They'd never have left their own seas if they hadn't been given a helping hand." He did not add "Who?" That would come later.

The journey back to the surface was occupied in careful decompression in the water-lock, the aliens working under the methodical directions of Pierre Ferenc. By the time the sub spaceship had altered course and risen alongside U.O.P. Base Trident, the three menfish were all but ready to leave. First, they relayed their information to Hardy, who at once contacted Dahlak Major, not without some triumph in his manner, and the jet-bomber was ordered back to base.

It was a quiet, simple, but disturbingly dramatic ending to interstellar war.

Dodge had been thinking a great deal about his own future. As they waited in the water-lock for final decompression and emergence into the six hundred feet deep U.O.P. Base, he was painfully aware of the whirling, light, inchoate mess of his thoughts and emotions. After what had happened to him, he supposed, he couldn't be expected to be able to laugh cheerily, and dash off aboard a space cruiser for the next adventure. He wasn't built quite like that.



He and Harp had received the news that they could now undergo an operation which would enable them once again to breathe in air with mixed feelings. Dodge had been shocked at his own lack of enthusiasm.

"I must be getting water-logged in the brain," he told Ferenc as the aqua-valves opened. "I've got a funny feeling that I want to stay Under Ocean—actually that I want to live down here in this watery graveyard. Stupid, don't you think?"

"It's happened before," Ferenc said, too casually.

Inside the wet section of the Base, they were greeted by Simon Hardy, George Werner and Henderson, all eagerly flying around, trying to say something before the previous speaker had finished. Dodge had little surprise that these men were menfish, too.

He'd expected it. He saw with envy the opercula over their gill slits, giving them when in air an almost normal appearance. He'd have a pair of those, he'd been told.

They were perfectly at home in air or water. Captain Pinhorn, wearing a facemask and emitting pretty little fairy-chains of pearly bubbles looked completely out of place. It was most disturbing. It was as though the menfish were members of an exclusive club, initiation into which demanded something so special from a man that only the very cream of the world's best could ever hope to enter.

Commander Jeremy Dodge began to feel at home.

The two events were connected, he could see that clearly, now. He could never have made contact with the aliens and brought his special Space Force attitude to bear if he hadn't been a manfish. He could almost call it fate, although he was too hard-headed and too convinced of his own powers to make a stupid decision to rely very much on fate. He had been taken below the surface of the sea and the aliens had fitted into his life as though waiting for him to arrive.

But, equally truthfully, if he had been a manfish, only, and had never contacted the aliens, he would now be feeling something as he had felt when they'd found the farm destroyed and Elise and Lura gone. As though there was nothing much left for them. He and Harp were on their way back to Neptunia, on a mission they knew was hopeless. The prospect of breathing air would have meant little, too; he could admit that now with complete honesty.

Pinhorn was talking about space. Hardy was rumbling on, his stump jerking, about co-operation and build-up on the ocean floor.

"Symbiosis. That's what it is!" Dodge burst out. Everyone swung round, flippers finning, to stare at him. Dodge laughed self-consciously. "You've told me that this Grosvenor fellow had Miss Tarrant and myself captured, along with Lura and her brother. So that's settled. But what I was thinking was that if it hadn't been for Danny Agostini taking us in the raid, and being able to hide us because we were in my uncle's own farm—at least, mine now, I suppose, I'd never have been made over into a manfish. And, in that event—"

"I don't think I could have handled the aliens by myself," said Ferenc. "Those first few moments—they were very tricky."

"But the real thing is this," Dodge said with passionate conviction. "Symbiosis. Ocean and Space. One and One makes the biggest number you can think of! Men go back to the sea, for food and power-sources; they make a return journey to the womb. It's nice to keep the planet going on its own resources. Why go to Space? And the Spacemen venture forth to those chips of light, knowing that one day a new race of men will arise out there in the vasty dark; and they tend to be contemptuous of the stick-at-home boys. They overlook the fact that their food must be provided from Earth, and that Earth has barely any surplus for fully dependent colonies on other worlds; unless the seas are worked to their utmost."

They were all gradually sinking to the floor now, watching him with various expressions; but Dodge knew what he had to say was getting home. Toxter ought to hear this—he would too. Hardy would see to that.

"You can't conquer the stars until you've conquered the seas!" He flung out a hand, stopped, and then went on more quietly: "At least—you won't do it and maintain a civilised life for those left on Earth."

Silence. A round port on the wall opened and a fat, chubby, cheerful fish swam in, its pot belly draped by a wicker framework, its opening and closing mouth like the essence of a silent choir. Hardy chuckled.

"Beautifully timed!" He snapped his fingers and the fish nuzzled his hand. "We all agree with you, Commander. Space and Ocean! One and indivisible! A toast on it!"

He began pulling flasks from the wicker cage on the corpulent fish's back, handing them round. Dodge put the cupped non-return valve spout into his mouth.

"This isn't water, gentlemen! Just this once."

Henderson said: "Space—and Ocean."

They all drank deep.

Lieutenant Benedek, his conical cap with slats open tucked smartly under his arm, came in and reported to Hardy. Hardy looked over at Dodge, and a smile wrinkled his eyes.

"Well, tell him, then, Benedek. You nearly spotted him once before, remember?"

Lieutenant Benedek flew across to Dodge, and said:

"Admiral's compliments, sir. A Miss Tarrant would like to see—"

Dodge was finning through the doorway before the Lieutenant had finished. Someone in the room chuckled and Harp scissored from the floor, finned after Dodge. Benedek saluted and followed, adjusting his conical helmet.

The room was small and square with a light fixture in the centre of the ceiling. One wall was a sheet of transparent plastic. Through it the other half of the room was just as bare, with its light fitting, but there was a single chair positioned close to the transparent wall.

On Dodge's side he breathed water. On the other side—he would have drowned in air.

She rose from the chair and came towards the glass wall, hands outstretched. The two-way communicator carried her voice clearly. Dodge pressed against the glass.

"Jerry—that is—I'm glad you're safe—"

"Elise—that Agostini—"

She smiled awkwardly with remembrance of unpleasantness.

"I'm afraid Lura was rough with him." Her eyes met his with perfect candour. "We helped to put him in the sub-tow balloon. Lura wanted to leave him to those terrible barracuda but I suggested he'd look better in court."

Dodge could see her face ; after one sweeping glance which took in those three scraps of defiant scarlet, he could see only her face. So like the last time—and yet now there was all the world before him, if—

"Elise," he said slowly. "I shall be having the operation very soon ; I'll be able to breathe air again." He gulped, and spat as he tasted sea-water for the first time unpleasantly. He'd become so used to it ; and yet now, just talking about breathing air again, he was rebelling.

"Sorry. Quite getting to feeling at home undersea. Elise—when I'm a normal man again, will you—"

She stopped him. "Jerry—one thing. I know how you must have felt when you were first press-ganged. I've lost sleep night after night thinking about it. I've been in mental agony—and yet I'm not pleading." She closed her eyes, and said firmly : "Jerry—I arranged for you to be kidnapped. Lura and her brother were to help." She opened her eyes, and rushed on : "But Grosvenor tricked me. All I wanted to do was to let you see something of what went on on the farms. I thought—you were a spaceman hero—you'd have no time to go undersea. You'd just take the profits and be off back to your stupid little balls of mud up in the sky." Her voice broke.

Dodge said gently : " All right, Elise. It's all right. I suppose I must have guessed. And Grosvenor had us all kidnapped ? So he could take over ? "

" I don't know. I don't think so. When he rang up your hotel I guessed something was going to happen. I was frightened that my plans had been discovered ; yet I had to go on. I thought that if you saw the conditions in the undersea farms then you'd do something to stop the cruelty. Grosvenor found out, and saw his own fat profits going—or, maybe, he really did want to take over. He stayed undersea all the time—he had surgery, like yours, only supposed to be perfect ; but it didn't turn out right. He's a little bitter."

" Under Ocean are the only people legally allowed to perform this operation, on volunteers," Dodge said. " Sure, I feel sorry for the guy, but he was playing with fire and got burnt." His voice changed. " But that doesn't matter, now. When I've finished this op, and get out, will you—"

" I'll race you," said Elise.

" Huh ? "

" I'll beat you to it."

" To what ? " Dodge put his face against the glass and peered hard, his nose flattened and bloodless. " Oh, no ! You mean you're going to become a mermaid ? "

" Too right."

The door opened and a comfortable, matronly woman walked in. She smiled and signalled to Elise.

Elise turned to the transparent wall again.

" I used my womanly wiles on the surgeons, so they'd operate on me first. I'll be a mermaid whilst your still under. Clever, aren't I ? "

" You just wait until I can lay a hand on you," growled Dodge. He pushed his mouth forward. Elise, on the other side of the glass, pressed her lips against the outline of Dodge's ; one in air, the other in water, they kissed through the plastic.

Dodge could have sworn the water his side heated up.

Kenneth Bulmer

Postmortem

Dear Mr. Carnell,

Every age has had as an important part of its culture some form of mythology or 'miracle' stories, from the legends of the gods and goddesses of Greece, the 'Thousand and One Nights' of Arabia, the Norse legends, to the Folk Tales of North America. Many of these myths and tales have been scientific theories in their own right, though lacking in discipline and fantastic by modern standards. Yet they did set out to present hypotheses to account for observed phenomena—thunderstorms, the stars, the shape of the mountains on the moon, the alternations of day and night, and have included much phenomena which still has to be satisfactorily explained. Others of the stories were for educational purposes; for creation of, and preservation of, national pride; for encouragement or example or to illustrate some moral precept. Many were told just for the fun of it.

With these myths and stories it is impossible to differentiate where primitive science, religion, propaganda, education or entertainment, start or finish. Similarly with much modern fiction, but with this difference. Although the purposes of entertainment, propaganda, moralising and religion are well served, the miraculous, and scientific speculation are poorly represented. This is a very great loss, for a culture in which the faculty of wonder has been lost, and in which the spirit of speculation is confined to the University and the Laboratory, is not in a very healthy state. Indeed we see the symptoms all around us today. Boredom, materialistic determinism, the decline of religion, loss of faith in human destiny, and pre-occupation with the ephemeral and the trivial. Above all there is fear—fear of loss of all the pretty toys and boring routines which fill our days and which we are afraid to lose because we are convinced that there is nothing else.

Even Science, the modern substitute for the miraculous, admits that it has reached the end of its abilities to make new observations. Microscopes can see no further into the microcosm; telescopes can see but little more of the macrocosm; all

that remains is to fill in the space between. The speed of light cannot be exceeded, and the human soul is nothing but a by-product of biological mechanics. Religion, which should be trying to get us out of this psychic blind alley, does nothing but try to hold on to outmoded concepts and the reiteration of platitudes which, if they have not succeeded in 2,000 years of trying, are not likely to succeed now. What then is missing in this modern world? *Imagination*! The ability to wonder; to cease for a moment peering hypnotised at the mud under our noses and to look up and realise that there are many more things in Heaven and Earth than are dreamed of in our myopic philosophy.

Miracles happen only in an environment in which miracles are possible. That sentence is worth some thought. I sometimes speculate upon just how much science owes to the tendency of results to happen, or not happen, as expected by the experimenter. It is notorious that experiments tend to go the way the human experimenter wants them to go. Though it is rarely, if ever, publicised, even carefully controlled laboratory experiments have a peculiar habit of varying with different experimenters, or with the mood of the individual experimenter. This is Scientific heresy, but get a research man to swallow enough beer some evening and when his inhibitions are sufficiently anaesthetised, he will have some peculiar experiences to tell, particularly if he is working in a new field.

At least science fiction and fantasy is partly fulfilling the present crying need for greater imagination, wider mental horizons, and rehabilitation of the ability to wonder. This, to my mind, is its greatest and most important contribution. A few moments conversation with a reader of science fiction, and one realises that one is talking to someone whose mind is at least partially freed from modern dogmatism. It is a remarkable thing that many fundamental discoveries are made by people who are not involved in the field in which their discoveries are made; often they are not even scientists in the formal meaning of the word.

What is modern science fiction? Our damnable habit of attaching all-embracing labels to everything tends to make one forget that many different manifestations are called by one name. My own classification of story values is made up as I go along:

1. Stories dealing more or less factually with the problems of Space Travel. *Interest, education, and the arousing of interest and speculation.*

2. Stories dealing with human adventures and situations in space or on strange planets, in Time, etc. *Purely entertainment.*
3. Psychological stories dealing with the reactions of a person or a limited number of persons, to an unusual stimulus. *Educational.*
4. The 'what would happen if . . .' type of story. This applies to an extent to all categories, but here it is intended to apply to the "Sociological" story which deals with the reaction of cultures under circumstances which could not happen on Earth. Also to the "after the cataclysm" type of story in which the events take place on Earth. *Entertaining, Informative, Arousing Speculation.*
5. The 'Gimmick' story. Rare nowadays. Dealing with the invention of some gadget such as a spy ray, or a drug which shrinks the user to the size of an ant. *Juvenile appeal mainly. Could arouse interest in Science. H. G. Wells did well with it !*
6. The 'Psi' story dealing with paranormal powers developed, or which could be developed by people. This is, to my way of thinking, the most valuable type of story because it arouses interest and speculation in a field which has yet to be properly investigated. Anything could happen, in fact, and these stories are bringing under serious consideration matters, which have previously been the happy playground of the lunatic fringe.
7. The alien story. This is a development of the B.E.M. now happily seldom seen in its raw state. Many of these stories are a good mental exercise for those suffering from Xenophobia. In others the author obviously suffers from Xenophobia himself.

Now after all that preamble, what am I up to ? I have said that in my experience the reading of science fiction results in greater mental freedom and a lessening of the 'it can't be done' attitude. Also it increases the ability to think objectively, and to speculate freely. I should also add that, due to the multitude of various theories presented to the science fiction reader, he is less likely to become unduly attached to one particular theory. This is one definition of greater mental freedom.

I don't suppose you will entirely agree with me, nor all of your readers, but I should like to see some discussion about these subjects in your pages.

*John F. Barrie,
Cambridge.*

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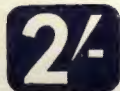
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